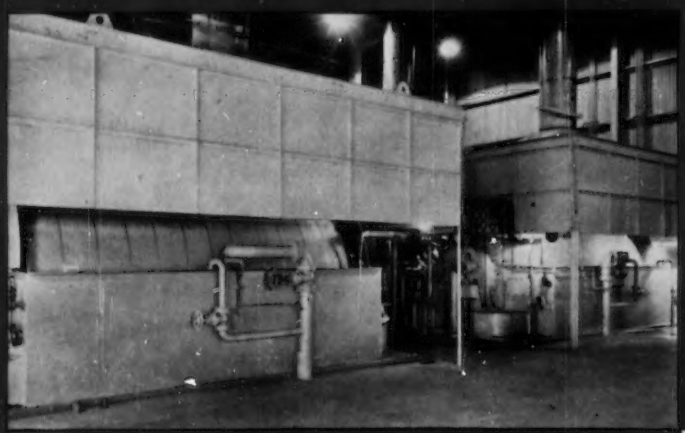
Ten Months of Boardmaking Progress | TV Goes to Work in New Mill Lab | What's the Score on NSSC Recovery

PAPER TRADE JOURNAL

December 24, 1956



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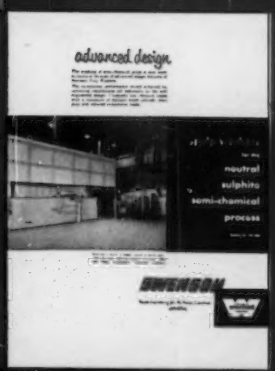

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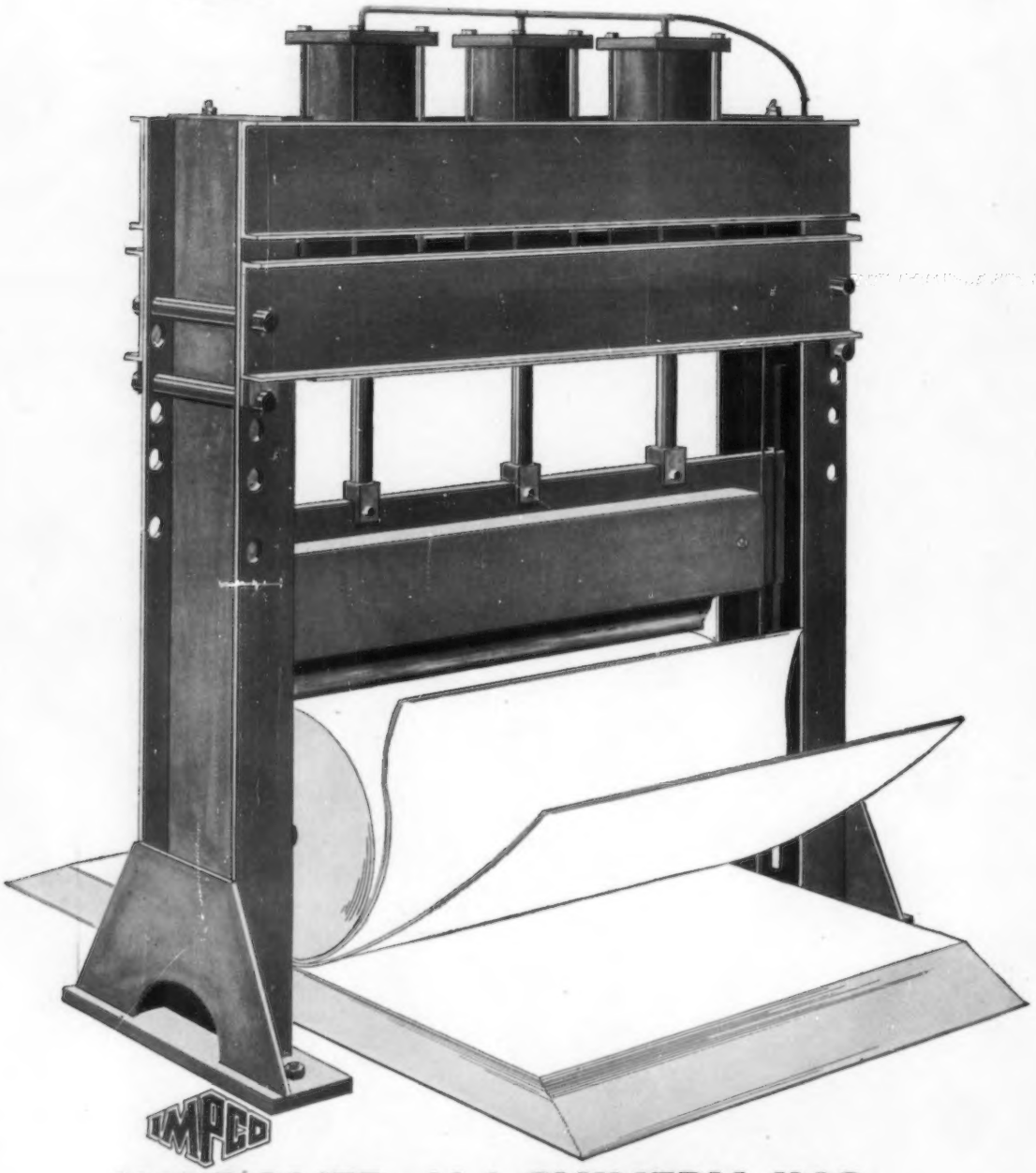

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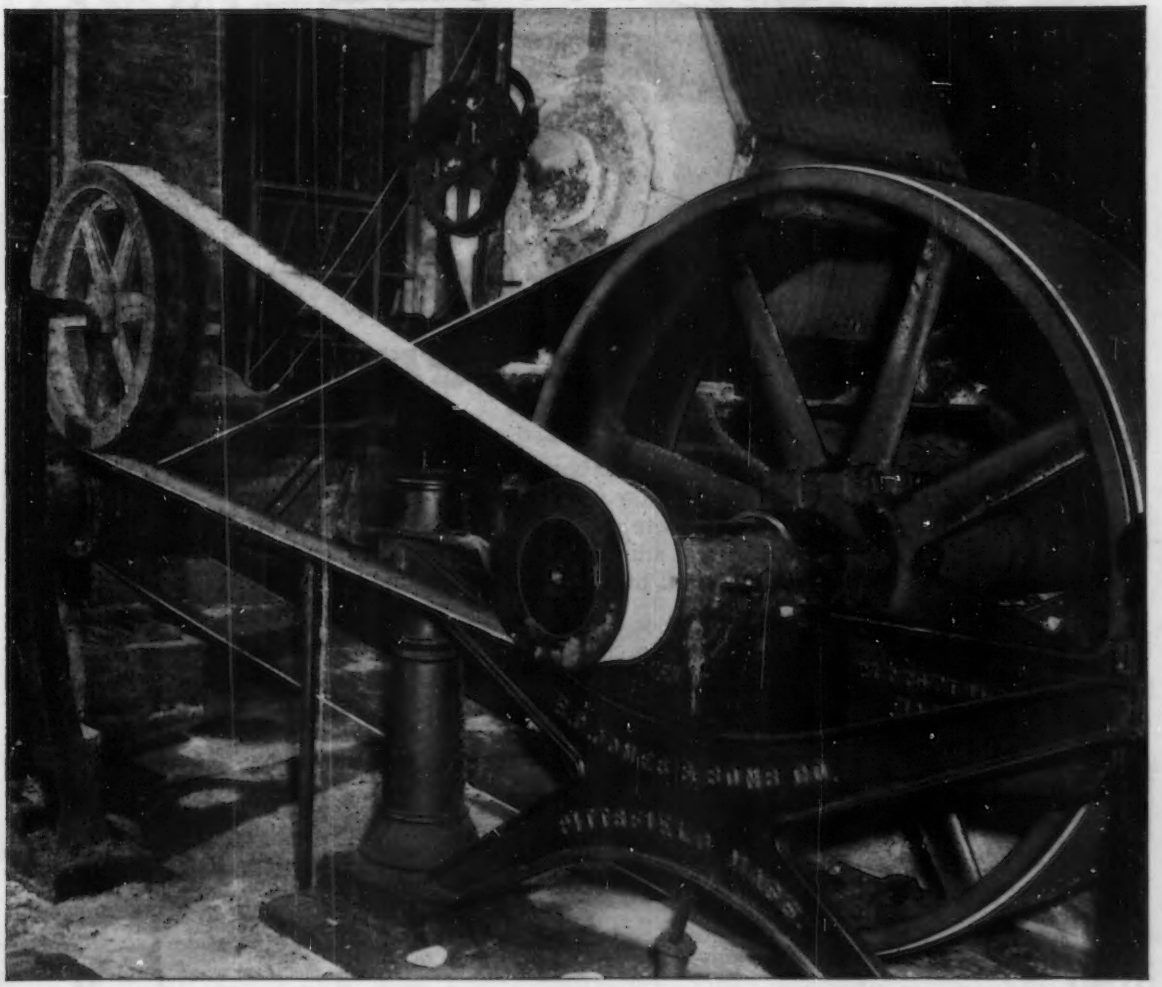

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REMEMBER THESE DATES

JAN. 23-25: Canadian Pulp and Paper Assn. Annual Meeting, Mount Royal Hotel, Montreal, Que.

FEB. 17-22: Paper Week in New York City.

PAPER TRADE JOURNAL

Published Weekly Since 1872

December 24, 1956, *Vol. 140, No. 52*

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Papermaking and the Atom

Here and there in the industry people are beginning to think about ways we can utilize atomic power. A prominent Canadian researcher forecasts nuclear powered, mobile pulp mills, and Kimberly-Clark is laying hard cash into the Armour Foundation's study of industrial uses of the atom.

Pulp Imports Still Up

Pulp imports were up in October. Canadian imports increased 7.9% and European 13.9%. Total imports for the first 10 months were up 9.4% according to figures released this week by the Association of Pulp Consumers.

Retail Sales Down

Contrary to the experts' predictions, retail sales volume for Christmas by mid December were below last year.

No Change in Pulp Prices

Pulp prices for the first quarter will remain at the same level as the last quarter of this year, as previously predicted in this column.

Folding Boxes Have '56 Gain

Folding Boxes will end the year with a dollar volume increase of 7% over last year, predicts Norman F. Greenway, president, Folding Paper Box Assn. An even better year is predicted for 1957.

Looking at 10 Months

The A.P.P.A. monthly statistical report for October shows a mixed pattern for various grades. For example, printing and fine papers had the best month of the year in October on the one hand, and coarse papers had a very poor month.

Capital for Sales

Capital expenditures required to generate a dollar of sales in our industry are very high. Although this situation has improved since 1932, when each dollar of capital resulted in sales of only 50 cents, up to a high of $1.70 in 1947, the trend is now downward again. The 1955 ratio was $1.55.

All at Paper Trade Journal hope that your Christmas will be merry and your New Year filled with happiness.

Everybody is talking about the Rice Barton

TRAILING KNIFE COATER

At coating discussions across the nation, the number one subject is the Rice Barton Trailing Knife Coater. Proven by many mills on a wide variety of paper grades, it produces a new high quality of surface levelness at or above today's top paper machine speeds.

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WEEK OF PAPER TRADE JOURNAL DECEMBER 24, 1956

Mead and Atlanta Paper Join Forces

On the heels of its acquisition of all the stock of Jackson Box Co., Mead Corporation takes another big step into box and carton world with an agreement to acquire Atlanta Paper Co. as a wholly-owned subsidiary. The basis of exchange is one Mead common share for each two common shares of Atlanta Paper Co. Affiliation of the Atlanta, Ga. converter with Mead, was conceived to strengthen Mead's position in the integrated paperboard field by having large scale converting operations in Atlanta, using Mead kraft liner board produced less than 100 miles away, at Macon and Rome, Georgia. Mead is also extending its diversified line of paperboard products to include folding boxes, multiple unit packaging, and carry-home cartons, a part of the box industry in which Atlanta Paper Co. holds a major position.

Atlanta Paper Co. will continue under the same name and management.

The Mead-Atlanta affiliation will be submitted to Mead shareholders at the next annual meeting, at which time the election of Arthur L. Harris, president of Atlanta Paper, to the board of directors of the Mead Corp. will also be proposed.

Atlanta Paper Has Long History

Atlanta Paper Co., said to be world's largest manufacturer of carry-home cartons for soft drinks, had its beginnings in 1868 as the Elsas May Paper Co. Twenty years later, it was reorganized as a Georgia corporation under its present corporate title. In its early years, the company was largely a paper jobbing concern. But about the turn of the century it began converting—first paper bags and later corrugated boxes.

Today, the company has four principal packaging divisions: Bottle Master; Folding Carton; Cluster-Pak; and Corrugated. In addition, it maintains a machinery division for the manufacture of Cluster-Pak packaging machines. The company operates three plants in Atlanta with approximately 500,000 square feet of manufacturing space, plus two subsidiary organizations: Packagemaster, Ltd., Toronto, and Palm Container Corp., Miami.

Principal officers are Arthur I. Harris, chairman of board; Arthur L. Harris, president; Henry H. Ogden, executive vice-president; Virgil C. Shutze, vice-president and director of sales; and C. Greene Garner, treasurer.

Hopper Buys Modena Paper Mill

Hopper Paper Co. has completed negotiations for the purchase of the physical assets of the Modena Paper Co. at Modena, Pa. Final transfer is planned for January 2, 1957. This additional capacity is designed to complement the existing Hopper paper manufacturing units at Reading, Pa. and Taylorville, Ill. 8he Modena plant is a two-fourdrinier, light weight writing and bond mill.

Hopper plans considerable conversion and modernization at Modena, but these developments will be worked out gradually while the mill is in production. Immediate additional capacity will approximate 9,000 tons per year and when the initial program of changes and alterations is completed an additional 6,000 tons is expected. The Modena Division will start out at once producing major lines of Hopper's offset papers and specialties.

Hopper officials view this move as the third step in a program of neccessary expansion which began with the start up of the Reading Mill in 1946, continued with the installation of a new machine at Taylorville in 1952, and has now advanced to the Modena mill purchase.

The former Modena Paper Co. has been operating under the direction of Morris Housen, president and J. P. Kennedy, executive vice-president and general manager.

Court Dismisses Federal Injunction Against I. P.

The United States Court of Appeals for the Second Circuit has dismissed a petition by the Federal Trade Commission for an injunction against International Paper Co. The Federal Trade Commission had sought to restrain the company from further integrating, consolidating or disposing of any of the assets of the former Long-Bell Lumber companies pending completion of hearings on the Commission's complaint challenging their recent merger into International.

New Semi-Chem Mill Producing at H&D Trenton

Hinde & Dauch of Canada Ltd. has completed its new semi-chemical pulp mill at Trenton, Ont. concluding a $2,500,000 program which has converted the Trenton operation from straw to wood pulp and provided a 50 percent increase in overall mill capacity.

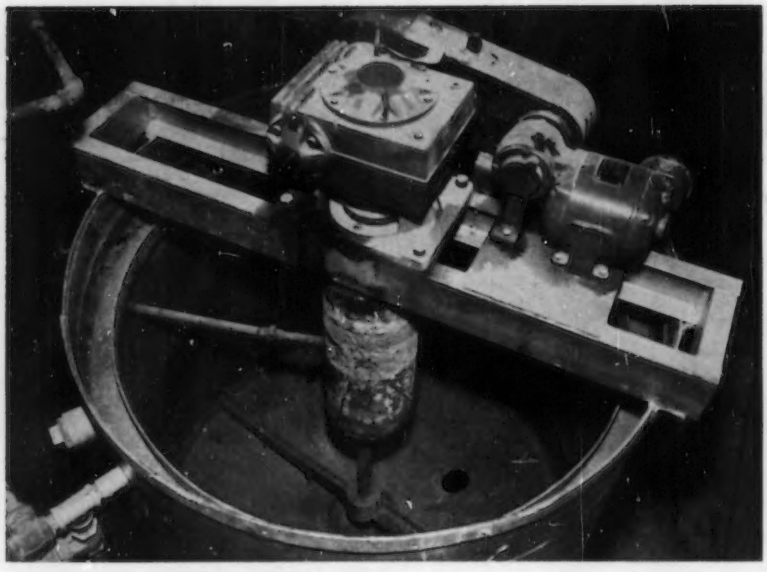
The new operation, which started up in mid-November, involved the design and construction of a new pulp mill in addition to a design modification and speed-up of the fourdrinier board machine. The entire project of layout engineering and supervision was handled as a joint effort by West Va. and H&D engineers.

Envelope Makers Pull Switch—Picket Union

Employes of a Philadelphia converting plant pulled a switch the other day when they established a picket line around the headquarters of a union which has been picketing and trying to organize the workers.

Eleven workers of the Whiting-Paterson Co., Inc., envelope manufacturers and paper wholesalers, threw up a line of pickets, carrying placards, in front of Philadelphia Local 169, International Brotherhood of Teamsters.

The "voluntary" demonstration, according to a spokesman for the pickets, emphasized that the employes did not want to join Local 169. The workers said the union's p'cketing endangered their jobs and pay.



Circular Pilot Plant Clarifier Enables . . .

. . . Moraine Paper to Gather De-inking Effluent Data

Moraine Paper Co., division of the American Envelope Co., West Carrollton, Ohio, has completed the construction of a circular pilot plant clarifier to gather additional data for use in designing a primary treatment plant to handle effluent from the mill's deinking plant.

The pilot plant clarifier consists of a 290 gallon effective capacity tank, capable of handling two gallons per minute of influent flow. The tank has a conical bottom and it is equipped with a mechanical scraper which revolves at less than one r.p.m. The scraper will slowly pull the sludge to the center of the cone for discharge at optimum workable consistencies. Preliminary trial runs have indicated the necessity of a sludge pump for removal of high consistency sludge.

Information Sought

The mill expects the pilot plant clarifier to give such information and data as:

- sludge consistencies that can be expected in full scale operations,
- whether the paper machine and the deinking plant effluents should be combined or be treated separately,
- the effect of felt washing compounds, modified starches, etc. on the clarification process,
- reduction in B.O.D. and required retention time for essentially complete removal of settleable solids. Experimental work will also be done on the sludge from the clarifier. Of particular interest will be its dewatering characteristics from a vacuum filtration operation or sludge lagooning operation.

The pilot plant installation represents another step in the mill's current efforts to reduce its pollution load to the Great Miami River. Last year Moraine installed a 26 inch steel pipe line over a mile long to carry the mill's effluent directly to the river. This eliminated objectionable odors in the surrounding community. Earlier, a county ditch had carried the effluents to the river.

The paper mill has a well closed white water system. Excess white water passes through a Sveen Pederson saveall where substantially all of the settleable solids are removed. The clarified water from the Sveen is used for showers, vortrap dilution, and for use in the final stage of washing in the deinking operation.

Disposal of sludge from a full scale waste treatment clarifier poses a difficult problem. The mill has sufficient land for lagooning sludge from a clarifier Officials are as yet doubtful about the feasability of this method since objectionable odors could be a nuisance to the nearby residential areas. Consequently, the mill is also studying the possibility of combining its effluent with that of other paper mills in the area as well as West Carrollton's municipal sewage for treatment in one large combined waste treatment plant. It has not yet been established whether this would be feasible. Moraine expects to complete its initial pilot plant studies sometime next year.

Champion Again Offers Scholarships

For the second consecutive year the Champion Paper Foundation will award six four-year college scholarships to high school seniors living in the Ohio, North Carolina and Texas operating areas of The Champion Paper and Fibre Co.

Two seniors will be selected from each of the three areas. They may attend any college or university of their choice, providing the courses they take lead to a Bachelor of Arts, Bachelor of Science or equivalent degree.

The foundation will provide one third of the students' "typical expenses" during each school year. In addition to the student awards the foundation will give grants-in-aid to further the development of higher education at the colleges and universities chosen by the scholarship winners.

Before being passed on by scholarship committees in the three areas, the students (who are nominated by their high school principals) must take the scholastic aptitude test of the College Entrance Examination Board in their states.

Issues Volume on Wet End Hydrodynamics

Based on papers presented at the 1956 annual meeting of the Technical Section, Fundamental Research Committee, of the Canadian Pulp and Paper Association, this 86 page booklet contains a series of texts devoted to fluid dynamics in papermaking.

The papers cover subjects including: drainage at a table roll, investigation of high speed paper machine drainage phenomena, streaks on paper machines as related to a stable spiral flow in the inlet, flocculation—formation and headbox design, measurement of paper formation, a hydrodynamic analysis of cross flow inlets, gas in papermaking stock, and a study of fiber distribution in relation to machine operation.

These reports may be obtained from the Technical Section of the Canadian Pulp and Paper Association, 2280 Sun Life Building, Montreal, Canada by both members and nonmembers at two dollars per copy.

Northwest's New Machine To Go Into Brainerd Mill

The new 200-inch, 2000 feet/minute Beloit fourdrinier paper machine and the necessary auxiliary equipment, ordered recently by Northwest Paper Co., will definitely be installed in the company's mill in Brainerd, Minn.

When the machine was first announced (Paper Trade Journal, Oct. 22). Northwest officials were still weighing the merits of placing the machine in Cloquet mill or the Brainerd mill.

Powell River Shelters Budapest Forestry Experts

Powell River Co. is moving approximately 300 professors and students, representing the entire forestry faculty of the University of Budapest to British Columbia. The company has set aside bunk houses, lecture rooms, a cookhouse and other facilities for the refugee group which is being moved en masse from Budapest.

M. J. Foley, president of the Powell River Co., said the organization would try to find them employment in the community and in the company.

K-C Backs Use-of-Atom Study for Papermaking

Dr. C. A. Stone and Dr. Paul Feng of the Armour Research Foundation met recently with research and development men of the Kimberly-Clark Corp. to discuss the relation of nuclear research to the paper industry.

K-C is one of the 24 industrial firms participating in the nuclear reactor program at the Armour foundation, described as having the first private nuclear reactor for industrial research. The research men from the foundation were shown the type of pulp and paper research in which K-C is now engaged.

Wis. & Minn. to Fight Pine Budworm

A $500,000 spray project to save some 300,000 acres of forests in Wisconsin and Minnesota is in prospect for next summer. Wisconsin already has asked for federal aid and is preparing to kill the jack pine budworm in about 200,000 acres. Minnesota is considering control operations in about 100,000 acres. The United States forest service plans to spray nearly 12,000 acres in the Chequamegon national forest.

Men and insects are fighting a war for the jack pines, which provide about 120,000 cords of pulpwood annually for Wisconsin's paper mills alone, as well as lumber for box factories.

Hudson Shelves Newsprint Plans

Hudson Pulp & Paper Corp. has notified Southern newspaper publishers that it is temporarily shelving plans for the construction of a Florida newsprint mill until technological problems can be worked out.

Written and signed by William Mazer, president of the company, a letter to the publishers reads: ". . . we are temporarily shelving this project. This does not mean that we are any less determined to get into the newsprint field. However, we feel it only fair to the publishers to let them know that we have not been able to get sufficient technological information to clearly indicate that a newsprint mill at Palatka would produce quality paper.

"We are continuing our research. When we have the proper answers to all of the technological problems you will be hearing from us again.

"We are notifying all of the publications who have given us contracts, cancelling these contracts so that the publishers can turn to other sources of supply for their needs.

"Again we want you to know how much your help and encouragement mean to us and to thank you for all you have done. We sincerely hope we eventually will meet with you again when we have our problems solved."

The Russian Industry Today

Two first-hand impressions of pulp and papermaking behind the Iron Curtain.

Two Westerners with trained eyes have recently seen something of the Russian pulp and paper industry. Their brief impressions are interesting:

Whitaker Views Paper Exhibit

One of a group of 50 business men who traveled into Russia early in October, Howard Whitaker, president of Mead Corporation, writes in the "Mead Reporter" of attending the Moscow Industrial Exposition:

"I spent a lot of time in the Paper and Timber Pavilion. They have ambitious expansion plans, including five newsprint mills and seven dissolving pulp mills to be located east of the Urals in Central Asia. I was surprised to find the wide variety of paper products now available. They have full information on the most recent advances in bleaching, liquor recovery, and utilization of by-products. But they are somewhat behind on machine speeds. Their latest newsprint machine, to be completed this winter, is designed for 1250 fpm."

McNutt Observes Woods Operation

Since returning from a timberlands tour in Russia, J. W. McNutt, president of William Milne & Sons Ltd., Ontario lumbering concern, writes as follows of the Soviet wood utilization:

"Insofar as the logging phase of pulp and paper operations goes, we did in effect see the job being done. Russian forest operations are completely integrated. In general, it may be said that they log off not only the whole tree length, but in many cases the whole tree with the crown. In this form it is delivered to a lower yard, which is actually a break-up point where the tree bole is separated into saw logs, pitprops, veneer logs, pulpwood, fuel wood, wood for hydrolysis, etc. The extent to which the wood is diverted into pulpwood, will depend partially on the species, diameter, class, etc. but also on proximity of that particular lower yard to a pulp mill, to a match wood factory or to whatever other wood using plants are within reasonable rail or other delivery of it."

Paper and Board Production

According to the American Paper and Pulp Association, the ratio of the United States production to mill capacity for the week ending Dec. 8, 1956, was 98.3 percent, compared with 97.8 percent, revised, for the preceding week. The ratio was 103.1 percent for the corresponding week a year ago. Mills producing newsprint exclusively are not included.

The paper board production ratio for the week ending Dec. 8, 1956, was 95 percent, compared with 86 percent, for the preceding week and 102 percent for the corresponding week last year.

(Detailed statistics on page 43.)

NEWS OF CONVERTERS

West Coast Converters See New C-Z Plant — Twenty-six members of the Converting Superintendents' Assn. representing mills on the west coast of the United States and Canada met lately at the new Richmond, B. C. plant of Crown Zellerbach Canada Ltd. . . . The one-day conference, under the chairmanship of Cecil I. Knapp, superintendent of the finishing dept. of Crown Zellerbach Corp., Camas, Wash., was the first to be held in B. C. . . . Following a tour of the new $4.5 million Richmond plant, delegates discussed methods and problems . . . The group watching a printing run at the Richmond plant were (l. to r.): E. D. Ochs, Camas,; Urban Grandeau, Port Townsend, Wash.; Cecil I. Knapp, Camas; J. L. Godding Richmond; W. C. Gigler, resident manager of the Richmond plant.

Arkell & Smiths Comes Up With "Step-Flex" Bags

Arkell & Smiths has placed in operation new machinery for manufacturing their stepped-end bag, called the "Step-Flex," at their Wellsburg, W. Va. plant.

This new A & S bag is now offered with either three or four walls. The pressure-glued stepped end at both top and bottom forms a squared-off type construction that facilitates handling shipping, and stacking, it is claimed. Further advantages cited are less breakage and sifting, and also improved appearance.

Additional plant expansion now underway is expected to bring the annual production of the new bags up to 72 million bags.

Package Design Show Scheduled for January

The Package Designers Council, New York, N. Y. has set January 28 as the opening date of its Third American Package Design Exhibition to be held at the Cooper Union Museum for the Arts of Decoration, Cooper Square, Fourth Ave. at 7th Street, New York. The Exhibition, comprised of entries in the Council's 1956 package design competition, will run through February 20 and will be open to the public at no charge from 10 AM to 5 PM Mondays, Wednesdays, Fridays and Saturdays, and from 10 AM until 9:30 PM Tuesdays and Thursdays.

Clopay Appoints New Chief Engineer

R. C. Gossling has been named chief engineer for Clopay Corporation's Cincinnati and Augusta, Ky., plants. Before joining Clopay, he was product engineer for Schenley Distillers, Inc. He received a degree in civil engineering from the University of Cincinnati in 1938.

Clopay converts paper and fabrics into window shades and garment bags.

Anderson Joins Gardner

Fred Anderson, former newsman and news editor of the Florence Morning News, is joining the industrial and public relations department of Gardner Board and Carton Co. in Middletown, Ohio.

Paper Converters Buy Industrial Brush Firm

Ira C. Foss and Frank W. Damrell, chief officers of National Tag & Label Corp., Watertown, Mass., have purchased the Hardy Brush Corp. from Textron Inc. The Hardy plant in Andover, Mass. will continue producing industrial brushes for paper coating and textile operations.

C-Z Adds Special 3-ply Grade to Napkin Line

The luxury 3-ply Facialfold napkin is a new product announced by Crown Zellerbach Corp., San Francisco. The new napkin is said to be extra soft, fluted around the edges and embossed with crowns. It has a basket weave border.

The new product is designed to upgrade the napkin line bought by restaurants and hotels and now gives CZ salesmen eight different napkin styles, ranging from Texture Fold, suitable for soda fountains, to the Facialfold, styled for banquet rooms.

Ohio Boxboard Shifts Box Plant Managers

The promotion of Hamilton Johnson, William Hahn and David Ryckman of Ohio Boxboard Co., Rittman, Ohio, has been reported by S. F. Allison, vice president and general manager of the company's container division.

Mr. Johnson, plant manager for Ohio Boxboard at Cuyahoga Falls, has been assigned to the company's administrative training program at Rittman.

Mr. Hahn, production superintendent since 1954 at Fairbanks Containers, Inc., an Ohio Boxboard subsidiary at Middletown, Ohio, has succeeded Mr. Johnson as plant manager at Cuyahoga Falls.

David Ryckman, corrugator foreman for the company's Rittman Production Division, takes over the post formerly held by Mr. Hahn at Middletown.

Stevens Named Exec. V. P. Of Milwaukee Lace Paper

R. W. Stevens has been named executive vice president of the Milwaukee Lace Paper Co., Milwaukee. He had been vice president of manufacturing.

The firm also announced that a portion of the firm's profits for 1956 had been distributed to employes with a year or more service.

D. G. Pryor

T. R. Murwin

Spencer Smith

Wm. Gleason

Paper & Twine Scholars for 1957

The Paper & Twine Association recently announced the names of five Western Michigan College student winners of Paper & Twine Assn. Scholarships. They are:

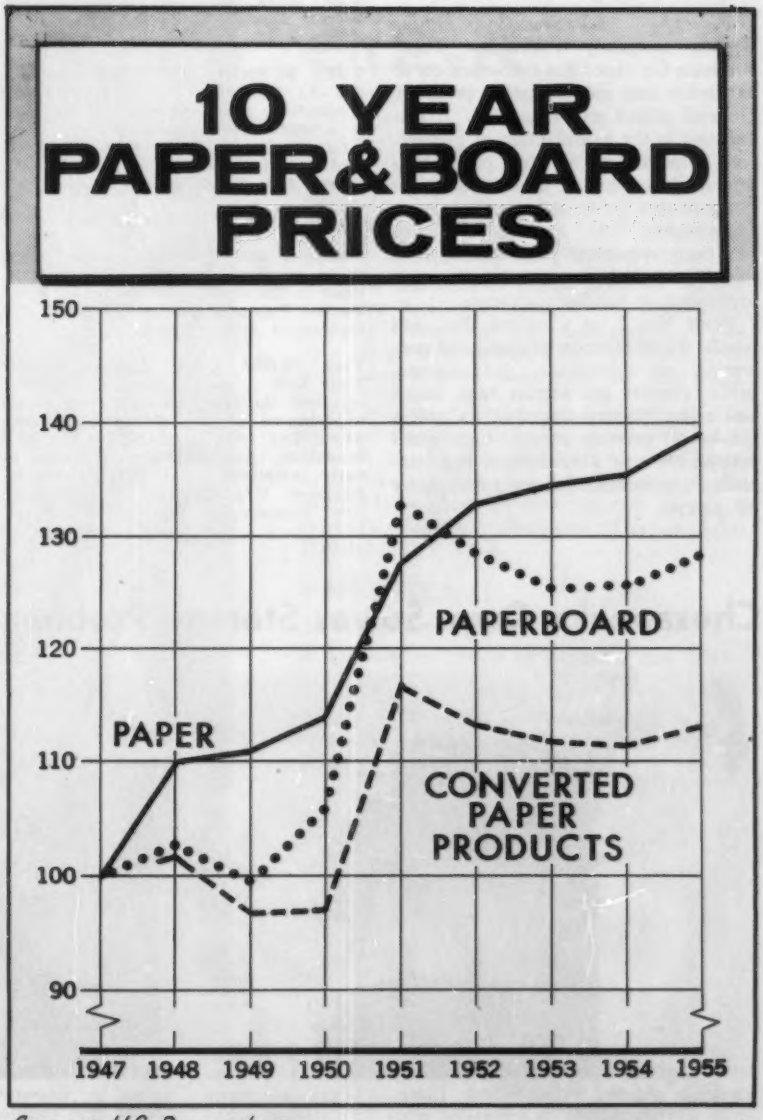
Thomas R. Murwin of Menominee, Mich., who enrolled in the pulp and paper technology curriculum at Western Michigan College in the fall of 1953 and won a Paper & Twine Assn. Scholarship as a result of competitive examinations. This scholarship has been renewed during his whole course of study. He is planning to graduate in June, 1957.

Donald G. Pryor, Three Rivers, Mich., who as a result of competitive examinations won a Paper & Twine Assn. Scholarship which has been renewed three times. Mr. Pryor is planning to graduate in June, 1957.

William Gleason, Muskegon, Mich., who won the Rotary International Leadership Training Camp Award. Upon graduation in June, 1956, he enrolled in the curriculum of paper technology at Western Michigan College and won a Paper & Twine Assn. Scholarship.

Spencer Smith of Oshkosh, Wis., who after some initial college training, became interested in the paper industry and accepted employment with the Hoffmaster Paper Co. in Oshkosh. Later on, he was employed by Rhinelander Paper Co. In the fall of 1955, Mr. Smith enrolled as a junior student in the sales and management curriculum of paper technology at Western Michigan College. Mr. Smith has been awarded the Paper & Twine Assn. Salesmanship Award on the basis of his fine scholastic performance and because he intends to use his knowledge in sales work.

Thomas Elias, Dearborn, Mich., who is enrolled in the curriculum of paper technology. As a result of his outstanding scholastic performance during the freshman year, Mr. Elias has been awarded the Paper & Twine Assn. Sophomore Award.



SOURCE: U.S. DEPT. OF LABOR

(Paper Trade Journal graph)

Richard Volksdorf
Plant Manager

Paramount Packaging Expands Bag Plant

Paramount Packaging Corp., Philadelphia (formerly Paramount Paper Products Co., Inc.) has embarked on an expansion and modernization program. General offices and Plant No. 1, specializing in the manufacture of glassine, foil, sulphite and all type paper bags are now located in new and larger quarters at 3111 W. Allegheny Avenue, Philadelphia. Mr. Richard Volksdorf has been appointed plant manager of this division, bringing with him 31 years experience in flexible packaging.

Plant No. 2, at Chalfont, Pa., will handle the multi-color printing and converting of cellophane, polyethylene, mylar, pliofilm and acetate bags, sheets and rolls. Modern five and six colors roll-to-roll printing presses, high speed cellophane and polyethylene bag machines will increase production capacity 50 percent.

NEW LITERATURE

ALLEGANY BLACK WIDOW BRIGHTNESS METER. (Instrumentation Data Sheet 29.5-2) Describes the application of a Brown ElectroniK instrument to the recording and controlling of paper pulp bleaching through a continuous brightness meter. **Minneapolis-Honeywell Regulator Co., Industrial Div.,** Wayne & Windrim Aves., Philadelphia 44, Pa.

CHICAGO FORWARD CURVE CENTRIFUGAL FANS. (Supplement 1, Bulletin C-103) Provides detailed performance charts on various types of fans. These are suitable for belt or direct drive and meet the requirements of a wide variety of applications. **Chicago Blower Corp.,** 9863 Pacific Ave., Franklin Park, Ill.

FUEL BURNING SYSTEMS. (Bulletin 1231-A) Describes complete, packaged combustion assembly utilizing gas, oil, or a combination gas-oil. Also includes photographs of the various elements and actual installations. **Orr & Sembower, Inc.,** Reading, Pa.

PLASTIC PIPE, FITTINGS AND VALVES. (Catalogue P101) Contains technical and descriptive data about these products, written with installations in the process industries in mind. **Vanton Pump & Equipment Corp.,** 201 Sweetland Ave., Hillside, N. J.

THE FLOW LINE. (House Organ) Tells how a young Swedish engineer invented the lubricated plug valve and experiences of the old-time salesmen when they tried to introduce the new invention. Also includes pictures of early installations, all still in service. **Rockwell Mfg. Co.,** 400 N. Lexington Ave., Pittsburgh 8, Pa.

PACKLESS VALVES. (Catalogue F) Describes complete line for applications involving hazardous liquids and gases. Also includes cut-away views of different models. **Fulton Sylphon Div., Robertshaw-Fulton Controls Co.,** Box 400, Knoxville 1, Tenn.

PAREZ RESIN 607 ACID COLLOID. (Technical Bulletin 30) Shows the correlation between resin solids, per cent, and Baume measurements. **Paper Chemicals Dept., American Cyanamid Co.,** 30 Rockefeller Plaza, New York 20, N. Y.

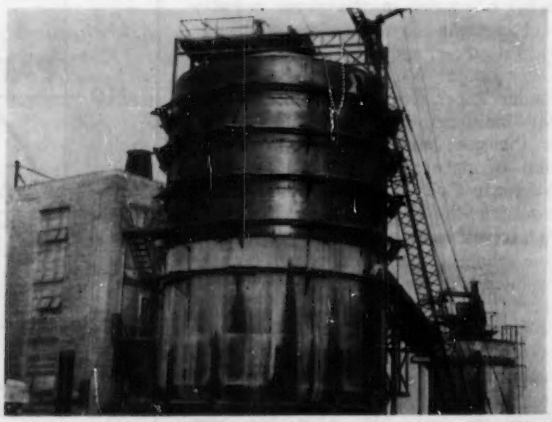
VISCOMETER RECORDERS, SERIES R3. (Bulletin V-1217) Provides illustrated sales copy and specifications of this series, available for use on electric and pneumatic control. **Norcross Corp.,** 247 Newtonville Ave., Newton 58, Mass.

ROTATING VACUUM TRANSMITTER FOR AUTOMATIC CHLORINE PROPORTIONING. (Catalogue 70-27) Includes line drawings of this unit, application and operational information. **Fischer & Porter Co.,** 906 Jacksonville Rd., Hatboro, Pa.

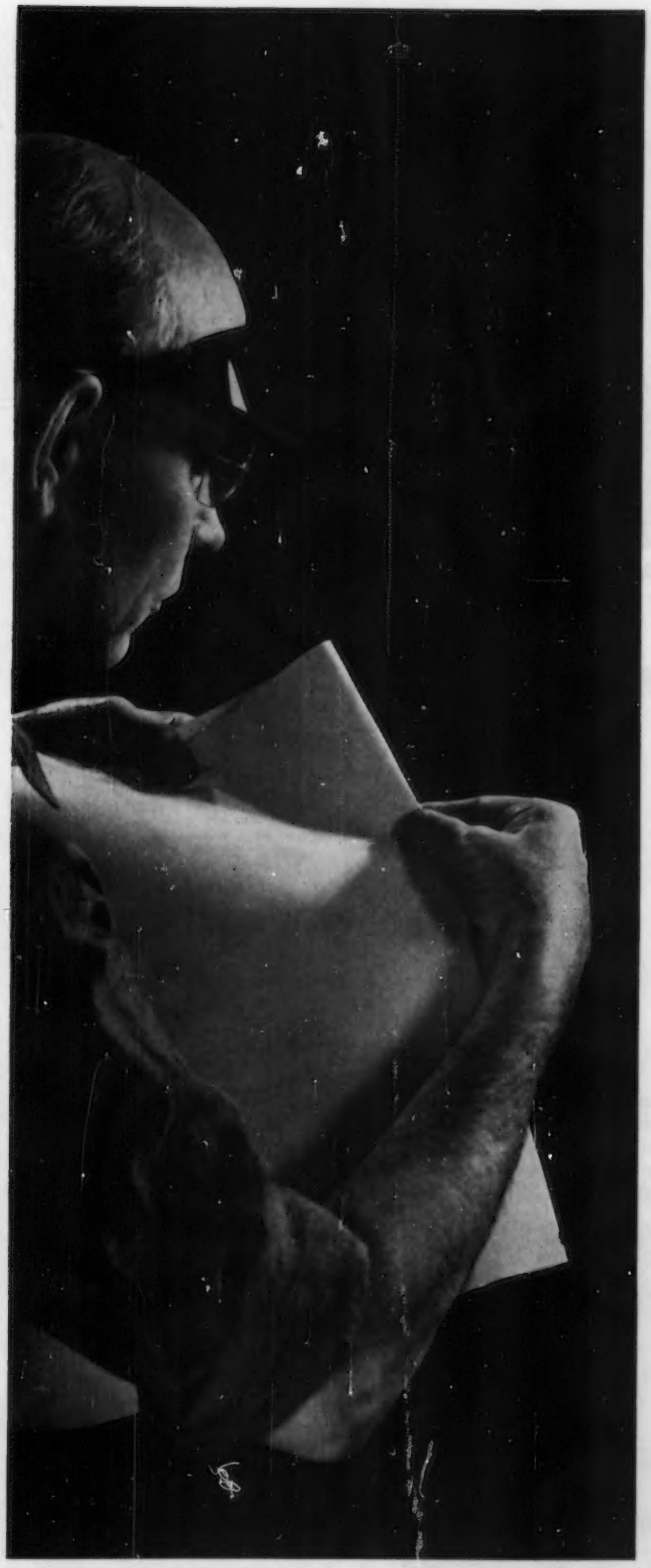
SORTEBERG FORCE BRIDGE. (Catalogue C80-1) Describes this computing device which can be used in pneumatic measurement or control circuits for a variety of purposes. **Minneapolis-Honeywell Regulator Co., Industrial Div.,** Wayne & Windrim Aves., Philadelphia 44, Pa.

BROOKS BY-PASS ROTAMETER. (Bulletin 116) Contains illustrated sales copy and engineering drawings of typical arrangements. **Brooks Rotameter Co.,** Lansdale, Pa.

Chesapeake Corp. Solves Storage Problem



MAKING ROOM FOR MORE LIME—Chesapeake Corp. decided recently that its needs for more lime storage space could be solved without erecting a new tower. The West Point mill engineers simply added a 24-foot section to the existing tank, raising its capacity from 500 to 1100 tons.



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Newest improvement at Crocker, Burbank & Co.

How a Modern Mill Laboratory Was Engineered

J. E. York
Building Service Engineer,
Stone & Webster Eng. Corp.

The Crocker, Burbank & Co., Association is an old established company which has been manufacturing high-grade papers for many years in Fitchburg, Mass. Having outgrown their existing laboratory facilities, in December 1954 they requested the Stone & Webster Engineering Corp. of Boston, Massachusetts to study their requirements and submit recommendations for the construction of a new laboratory.

Since no other suitable site was available, they wished to build on the same site as the existing laboratory and, if possible, without interruption of work in the laboratory.

The existing laboratory building was approximately 190 ft long by 44 ft wide. It consisted of a 100 ft long, one-story metal covered wood structure north of a masonry dividing wall, and a two-story structure of similar construction south of the masonry wall.

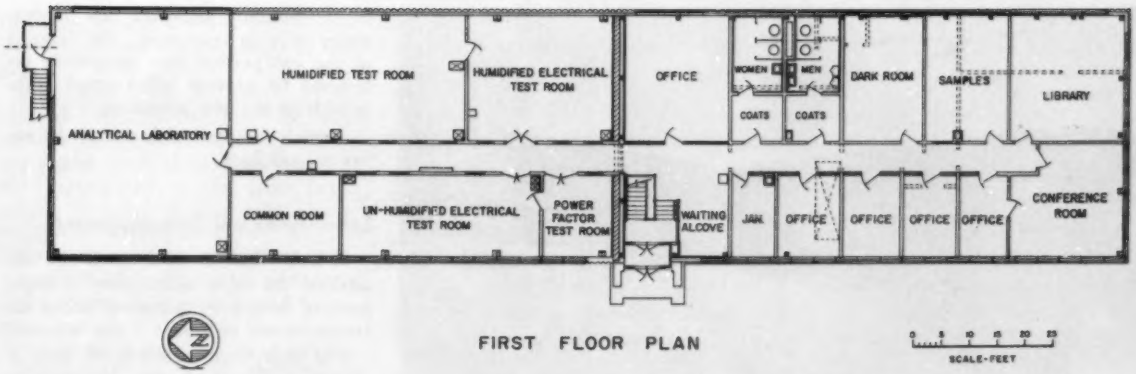
The one-story structure was used for storage purposes; the upper floor of the two-story structure housed laboratories, and offices.

Memorial to a far-sighted papermaker.

After a few preliminary conferences, a satisfactory arrangement of laboratories and offices was adopted and an estimate of the cost of the building with new laboratory furniture and services was submitted to the company by the engineers.

This arrangement provided for a two-story building with laboratories occupying the second floor north of the masonry dividing wall. On the same floor south of the dividing wall were the offices, men's and women's toilet rooms, a darkroom, and a reception room. This arrangement made it possible to build and equip the new laboratories without interference with the work being carried on in the existing laboratories.

The estimate submitted by the engineers was approved and construction of the laboratory was authorized about the end of January 1955.



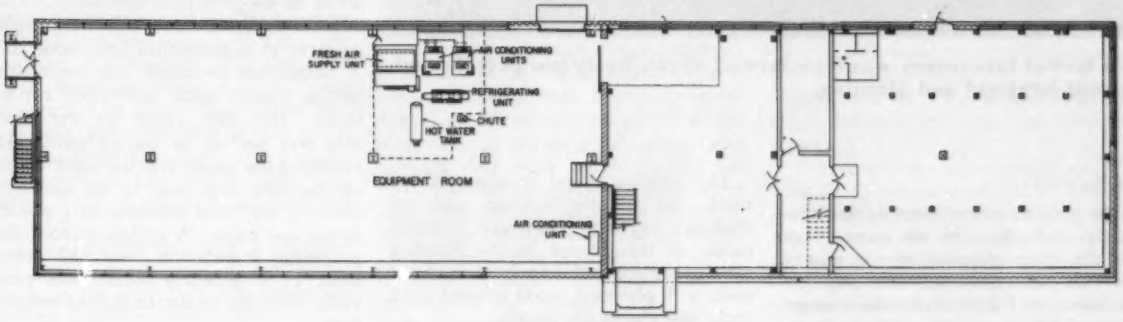
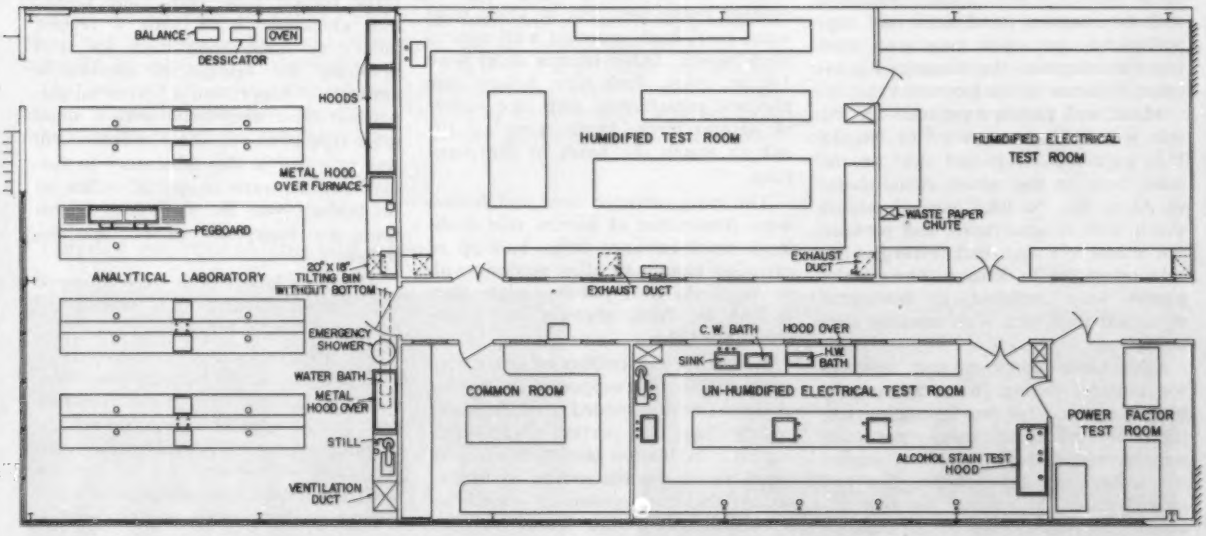
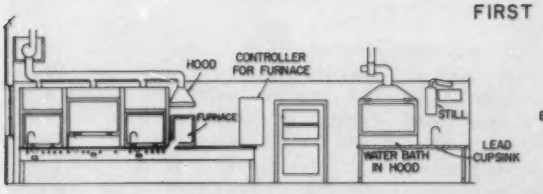


Figure 1—General layout of both floors.





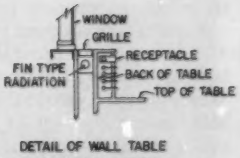


Figure 2—How the test equipment was deployed.

This former laboratory was transformed at relatively low cost through careful foresight and planning.

The Building

The general arrangement of the laboratories and offices on the second floor and the space required on the ground floor for laboratory service equipment are shown on Figure 1 and the arrangement of laboratory furniture is shown on Figure 2.

The existing one-story section of the building was torn down and replaced by a two-story steel framed structure with an insulated metal deck roof supported by open web long span steel joists to eliminate the necessity for interior columns in the laboratory.

Metal wall panels were used for the side walls. These consisted of No. 18 U.S. gage metallic-coated steel on the inner face, on the outside fluted sheets of Alcoa No. 16 B&S gage aluminum sheets with striated finish, and between the sheets 1½ in. thick Fiberglas insulation of 2½ lb density. These metal panels were attached to horizontal structural steel girts with stainless steel bolts.

Continuous aluminum sash designed for outside glazing, with horizontally hinged top and bottom ventilating sections, and single thickness clear glass were provided around the new section of the building, for both the first and second floors, except for the two air-conditioned laboratories at the back of the building, which have no windows.

The exterior of the new building is shown in the opening picture.

Lightweight concrete block partitions, 4 in. thick, were provided between the laboratories and for the corridor walls. Windows were provided in the corridor walls above the top of the laboratory tables to furnish natural lighting in the corridor. Insulating glass was used in the windows between the corridor and air-conditioned rooms.

The existing wood framing in the south end of the building was not changed, but new partitions between rooms in this section of the building were constructed of 2 in. by 4 in. wood studs with plywood, wood grained sheet rock, and glazed tile panels.

Plywood sheets for the entrance, waiting alcove, library, and conference room were rift oak veneer finished in natural color. Doors for the air-conditioned rooms were 1¾ in. thick, solid wood core, flush veneered with natural birch veneer. Other interior doors were 1¾ in. thick, flush type, hollow core plywood construction with face veneer of natural birch, knotty pine, or rift oak to match the finish of the partitions.

The main entrance door and frames were constructed of narrow stile aluminum stock entrance units, built-up of extruded aluminum alloy sections with ¼ in. thick, clear polished plate glass and ½ in. thick, abrasive cast aluminum thresholds.

Acoustical tile ceilings of perforated mineral fiber tile, supported on furring channels, were provided over the entire ceiling in the new portion of the building. A 2 in. blanket insulation was provided above the tile ceiling to further reduce the transmission of sound between adjacent rooms. Similar acoustic tile was applied over wood ceilings in the old section of the building.

The exterior siding on the south end of the existing building was removed and replaced with new aluminum siding on wood girts with sash to match the new portion of the building.

New men's and women's toilet rooms with modern fixtures, tile walls, and metal toilet partitions, a new darkroom for viewing films, offices, and reception rooms were provided in the old portion of the building after the new laboratories were in operation. The interior of the old portion was completely refinished to provide office space comparable to the new laboratory.

Asphalt tile was applied over the entire second floor.

Laboratories and Their Equipment

Several studies were made to determine the most satisfactory arrangement of laboratory furniture before the layout shown in Figure 2 was adopted.

The large room at the north end, as shown in Figure 4, was equipped to serve as an analytical laboratory. The two rooms on the east side were made to serve as a humidified test room and a humidified electrical test room for testing papers under controlled conditions. The long room on the west side was set up as an un-humidified electrical test room and the small room on the west side, next to the masonry dividing wall, was arranged as a power factor test room. A common room for preparing reports on tests and other work of a technical nature was provided adjacent to the analytical laboratory.

The analytical laboratory was equipped with four center tables, one wall table on the east wall, a battery of three regular laboratory fume hoods, one aluminum hood with a regular laboratory fume hood front for tests involving the release of appreciable amounts of vapor, and a horizontal galvanized sheet steel hood over a small table type oven. A steam operated still was provided in this laboratory to furnish distilled water to special outlets on the tables. Near the main door of this room an emergency shower was installed.

The other laboratories were equipped with center tables, wall tables, and hoods for special purposes.

The advantages and disadvantages of both wood and metal furniture were carefully considered. Metal furniture was finally selected after comparison of price and delivery, and careful consideration of the diversity of opinion and experience of technicians and owners of both types of furniture in other laboratories.

Table tops in wet areas were constructed of carefully selected deep-quarried stone held together by a special chemical binder and subjected to extreme pressure, then heat cured to form dense homogeneous slabs. A drip edge was provided around the front and ends of these tops.

Table tops in other areas were constructed of specially processed wood construction which provided a dense,

hard and durable working surface, relatively free from the possibility of warpage.

All piping above the table tops was concealed behind backs of the same material as the table tops.

Reagent shelves for wall benches were established at the same height as the ledge of the sash in exterior walls and corridor partitions.

Sinks were constructed of material, which would be resistant to thermal shock commonly encountered in laboratory sinks where there is frequent and rapid change from hot to cold water.

Special faucets were provided at picked locations for distilled water, and outlets were liberally provided and uniformly spaced for air, gas, vacuum, and electrical connections. Hot and cold water were provided at sinks, and gooseneck cold water faucets with lead cup sinks were provided in the hoods and at special locations on the tables. The outlets in fume hoods were controlled from handles on the front of the hoods.

A large double sink with a pegboard was provided on one of the center tables in the analytical laboratory for washing glassware and utensils.

Considerable thought was given to the arrangement of cupboards and drawer space. Standard assemblies, grouped to best meet the individual requirements of each laboratory, were used where possible. No locks were provided on cupboards or drawers.

To provide for ready disposal of waste material from the laboratory, which might be suitable for reuse, tilting bins without bottoms were installed in three locations to discharge through chutes to open top trucks in the basement.

Humidity Control

The two Humidified Test Rooms were each provided with a separate air conditioning system to maintain year round temperatures of 75 F $\pm$ 2 F and 50% $\pm$ 2% relative humidity.

Space was provided in the basement for mechanical equipment to serve the laboratories.

Air at suitable temperature and relative humidity to maintain the required conditions in the humidified test rooms was supplied by two vertical air conditioning units through concealed ducts above the ceiling to diffusers equipped with antismudge rings. Return air grilles below the tables were connected to the intake side of the air conditioning units through duct work on the ceiling below. The air conditioning units were each equipped with heating and cooling coils, filters, sprays, and fresh air make-up connections to provide 15 c.f.m. of fresh air per person with maximum occupancy of the rooms.

A 7½ ton, two cylinder, refrigerating compressor, using F-22 refrigerant and equipped with shell and tube condenser and water chiller, was installed to chill water circulated by close coupled pump to the cooling coils in the two air conditioning units.

The operation of the air conditioning equipment for each room was controlled by a two pen (dry and wet bulb) recorder controller with a calibrated accuracy of $\pm$ 1 percent of the scale plan and equipped with a water wick, tank and circulating fan assembly to ensure accuracy of measurement of the wet bulb temperature.

Heating and Ventilation

The power factor test room was provided with a separate air conditioning system to maintain a temperature of 70 F during the warm weather. A separate self-contained air conditioning unit was provided in the basement to supply conditioned air to this room through concealed duct work and ceiling diffusers as described for the humidified test rooms. The operation of the air conditioning equipment was controlled by a room thermostat.

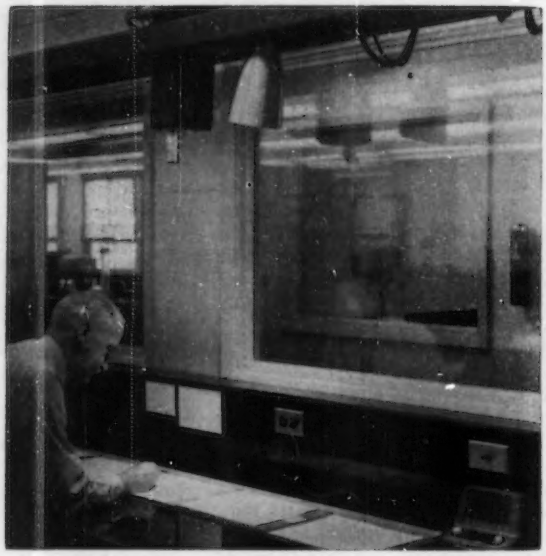
Ventilation only was provided for the other laboratories and the common room.

The ventilation requirements for the analytical laboratory and the un-humidified laboratory were determined by the requirements for the hoods in these rooms. A negative pressure was provided for the analytical laboratory to prevent odors from this room spreading to other parts of the building, and a positive pressure was provided for the un-humidified laboratory to prevent unfiltered air leaking into this room. To ensure removal of all fumes and odors which might be generated in the laboratory fume hoods or at nearby tables, exhaust fans were provided to maintain face velocities at the hoods of up to 75 fpm with the hoods wide open.

"Hardly recognize the old place . . ."

Cramped quarters (left) gave way to spacious, well-lighted analytical laboratory (right).

Television Relays Test Results To Paper Mill



Laboratory test results are televised in the new building (left) and relayed to monitor in sample room of the paper mill (right). Speed is gained; leg work is saved.

A horizontal suspended unit ventilator, located in the basement close to the air conditioning units for the humidified test rooms and taking its air supply from the same fresh air intake, was provided to deliver make-up air to the laboratories without air conditioning through ducts concealed above the ceiling and ceiling type diffusers similar to those previously described. The ventilating unit was equipped with throwaway type filters, nonfreeze heating coils, external face and by-pass dampers, adjustable sheaves, and V-belts to permit variation in the speed and capacity of the two fans in the unit. The operation of the face and by-pass dampers was controlled by a thermostat in the discharge duct to maintain the temperature of the air leaving the unit between 65 and 85 F, as desired. An automatic valve on the steam supply was provided to shut off the steam to the coils after the face damper was fully closed. Space was provided in the ventilating unit for the installation of cooling coils if desired at a later date.

Fin type heating surface, with casings having horizontal grille surfaces of the proper width to fill in between the back of reagent shelves on wall tables and the window sills, was provided in all of the laboratories except the Humidified Test Rooms, and in the office area. Thermostats in the laboratories were located to provide zone control; in the office area a single thermostat was provided to serve groups of offices with hand control on each radiator to permit manual shutoff if desired by the occupants.

Unit heaters were provided for the basement of the new portion of the building and the radiation in the existing part of the basement was left unchanged.

The heating system was supplied with steam at 3 to 5 p.s.i. through pressure reducing equipment located next to the air conditioning equipment in the basement.

Other Services

Service piping to supply compressed air, gas, vacuum, hot and cold water, distilled water, and waste piping was installed in an orderly manner on the basement ceiling and brought up through multiple floor sleeves under the tables for concealed distribution to outlets on the tables and in the hoods.

A sprinkler system with the pipe above the ceiling and pendent heads was provided for the laboratories, and exposed piping with upright heads was installed in the basement. The sprinkler system in the existing portion of the building was changed to conform to the new system.

Refrigerated drinking water coolers were installed at convenient locations in both portions of the building.

Fluorescent lighting was provided throughout the building, and 110 v. and 220 v. a.-c. and 500 v. d.-c. outlets were located on the tables.

Two sources of power, one from the plant generating equipment and the other from the local utility company, were provided, with a throwover switch to permit change from one to the other as required.

An intercommunication system was provided between the various rooms.

Use of Television

Closed circuit television equipment located in the humidified test room with monitoring equipment in the Samples Room, as shown on 6 and 7, was added to permit direct reading of the results of the tests being made in the laboratory at the No. 8 mill building about a mile away. A pneumatic conveyor system between the mill building and the laboratory was installed to provide a means for rapid transfer of samples to be tested.

Work in the field was carried out on a normal 40 hour work-week basis with only a very small amount of overtime. Approximately seven months after the start of construction, laboratory personnel were moved into the new section of the building with little interference to normal operations. Work proceeded immediately on remodeling the old section thus released, and three months thereafter construction had been essentially completed and the remainder of the building was turned over to the owner for occupancy.

The entire program was completed somewhat under the original estimate of $288,000.

Converted Products Trends

John R. Mutzabaugh,
Industry Analyst for Converted Products
Forest Products Division, U. S. Dept. of Commerce.

Combating leveling domestic markets, rising raw material costs, and a weakening export market, converted paper and board products industries turned in a most creditable production performance for the first 9 months of this year with a 5 per cent increase over the January-September period of 1955.

Affected considerably by the switch in personal consumption expenditures from all types of products to services, converted products maintained an enviable production schedule by keeping pace with the changing trend and exceeding the increases experienced by most manufacturing industries.

Markets

Manufacturing, including the food industry, consumes over half of all converted paper and board products produced and usually sets the pace for the converted products industries. Recently more money has been spent on services and less on all types of products, thereby lessening the influence of manufacturing on the production of converted products.

This declining influence is reflected in the following 1956-1955 comparisons for the January-September period: Manufacturing was up 4 per cent, converted products 5 per cent, and service industries 8 per cent, according to Commerce Department and Federal Reserve Board data. Though still strongly influenced by manufacturing, the changing trend is apparent in the pull of the service industries.

Further evidence of the swing to services can be found in the 11 per cent increase experienced for the same period by paper merchants, who handle the bulk of converted products used by the comparatively small service industries.

Additional converted product markets that recorded increases for the same period were retail trade 3 per cent, wholesale trade 6 per cent, household 12 per cent, and exports 2 per cent.

Prices

Despite the fact that averages for September were 9 per cent over a year ago, converted products prices remained 12 to 14 per cent below primary paper and board prices, based on 1947-49 averages, and about even with all products except farm and food on the same basis, according to the Bureau of Labor Statistics.

Office supplies were up 3 per cent from September 1955, games and toys 7 per cent, sanitary products 1 per cent, and packaging accessories held even for the year.

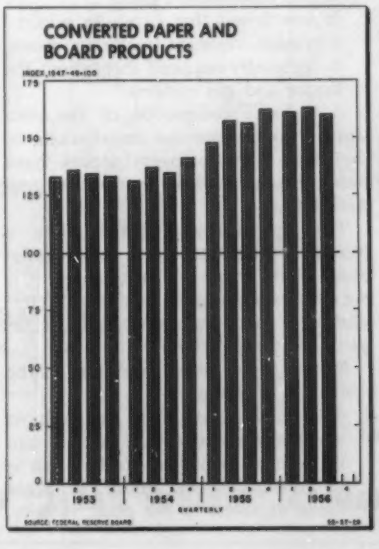
Corresponding with domestic market prices, converted products export prices were up 9 per cent for the period and are currently $550 a ton compared with $507 a ton at this time last year.

Raw Materials

Availability of paper and board improved during the third quarter of the current year as is evident from the fact that paper mills operated at an average of 93 per cent of capacity during this period compared with an average of 102 per cent for the first six months of the year, according to American Paper and Pulp Association figures. Unfilled orders at the end of September for all types of paper except newsprint and building paper were down 7 per cent from a year ago.

Paperboard mills produced at an average of 87 per cent of rated capacity during the third quarter compared with an average of 99 per cent for the January-June period. Unfilled orders were down 30 per cent from the 1955 level at the September closing.

Prices of primary paper were up an average of 6 per cent for all grades from September 1955, with waxing paper predominantly higher at 9 per cent. Basic board prices were up 5 per cent, with boxboard showing an increase of 8 per cent. Fuel and power were up 3 per cent and chemicals 1 per cent for the same period.



Production

The 5 per cent increase in production of converted products for the first 9 months of this year over the like period in 1955 was outstanding when measured by accepted yardsticks, including total industrial production, up 3 per cent, total manufacturing up 4 per cent, durable goods manufacturing, up 3 per cent, and nondurable goods manufacturing, up 3 per cent, on the basis of the Federal Reserve Board Index.

Though not equal to the increase of primary paper and board for the January-September period, converted products production continued to lead this field on a basis of 1947-49 averages, with converted products up 68 per cent and paper and board up 48 per cent.

Imports

Imports of converted products increased 38 percent during the third quarter of this year in comparison with the same period last year. Showing increases over 1955 for similar periods, imports were up 65 per cent at the end of the first quarter of this year, 60 per cent at the end of the 6-month period, and 54 per cent at the end of the 9-month period.

What's The Score On NSSC Recovery?

Three different methods of chemical recovery from semi-chemical liquors were presented at the recent Alkaline Pulping Conference. Two of these are summarized here, the third was reported in our April 30th and May 7th issues by Boyer and Nugent.

The Mead Recovery Process

John Campbell, Jr.
Application Engineer
Babcock & Wilcox Co.

And

Dr. Philip E. Shick Formerly
Research Dept. Mead Corp.

Our purpose here is to describe the neutral sulphite semi-chemical liquor recovery process developed by the Mead Corporation. . . . Mead's early efforts in the field of recovery were directed towards collection, evaporation and burning of waste liquor solids, and towards the elimination of sulphur compounds from the recovered furnace product by control of combustion conditions. . . . Although there was considerable variation in the sulphur content of the recovered furnace products in these studies, the sulphur content was not reduced to a low enough level to consider this work successful. These trials did demonstrate that neutral sulphite cooking liquors could be burned in commercial furnaces. . . . Mead Corp. decided that their questions could be answered only by pilot plant operations. They proposed a 10 ton NSSC pulp installation. At this point, the Babcox & Wilcox Co. joined the project as supplier of the pulp recovery furnace and further cooperated in furnace development and corrosion tests. The pilot plant was installed at the Sylvia, N. C. mill of Mead Corp. . . .

The pilot plant was in actual operation for about 9 months out of a piloting period of several years. The results were:

1. The complete cyclic system was operable. The liquor could be burned in the small furnace and so could the returned hydrogen sulphide . . .
2. The integrated operation was run on a 24 hour a day basis for 30 consecutive days.
3. All cooking liquor produced in the pilot plant was used for neutral sulphite cooking.
4. Much information was obtained on absorption coefficients in the carbonation system for sizing of future towers.
5. It was proven that the quantity of flue gas returned to the furnace with the hydrogen sulphide could be minimized by splitting the flue gas flow part way through the carbonation system. The H_2S rich gas for return to the furnace was taken off at this intermediate point . . .
6. It was found that carefully selected corrosion resistant materials would be generally required throughout the liquor and gas systems.

. . . Since completion of the pilot work, two commercial installations of the Mead NSSC recovery process have been engineered and are under construction . . .

The accompanying figure gives a typical arrangement of a commercial Mead NSSC recovery installation. It is not strictly applicable to either Watervliet or Lynchburg, particularly as regards the tower system . . .

Briefly, the expected operation of the system is as follows:

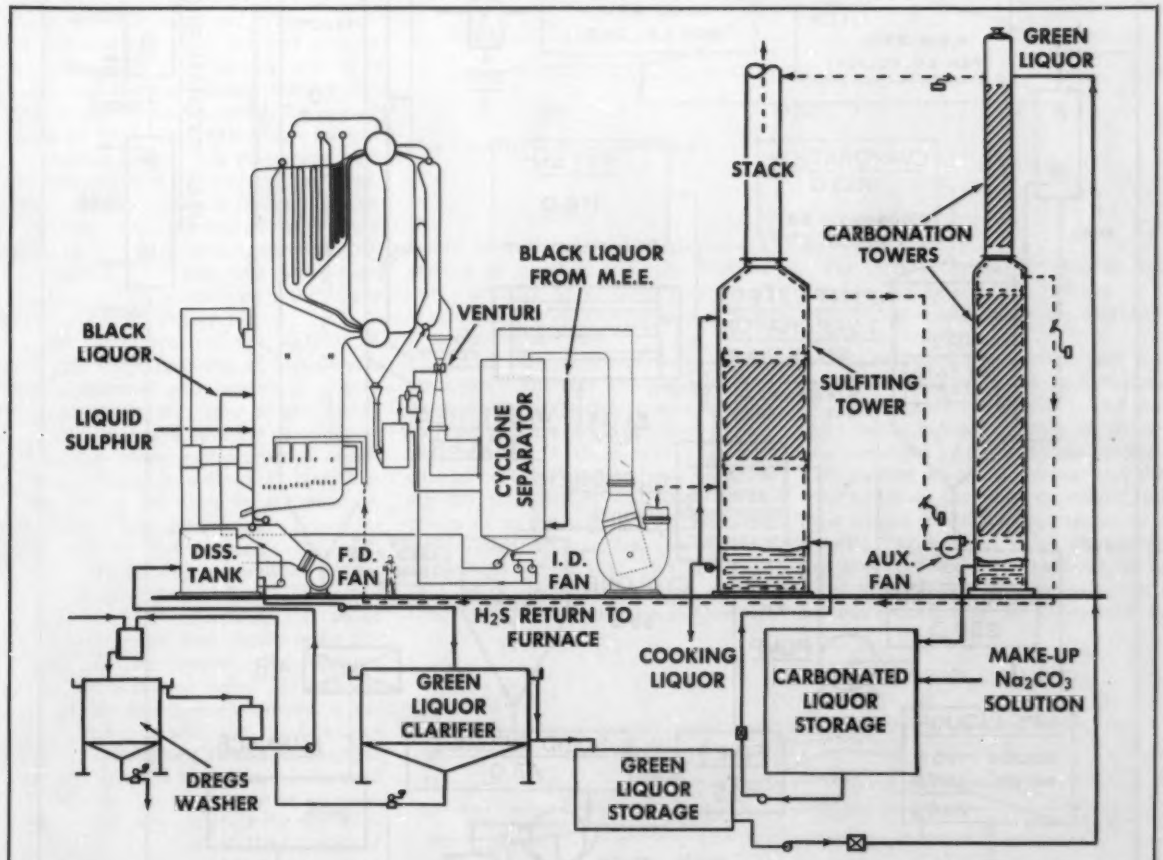
1. The black liquor from the multiple effect evaporators will be fed into the venturi scrubber. Its function is to concentrate the liquor, to avoid fume nuisance in the plant vicinity, and to reduce contamination of sulphited liquor with sodium sulphate fume and fine carbon carryover.
2. The black liquor is then burned in the recovery furnace.
3. The smelt is dissolved in a conventional green liquor smelt dissolving tank. The green liquor is clarified in a single compartment clarifier with the usual dregs washer. Weak wash from the dregs washer is returned to the dissolving tank as makeup water. A large clarified green liquor storage tank is provided to permit suspension of carbonation system operation, when desired, without disturbance to the remainder of the system.
4. Liquor is fed from the green liquor storage tank to the top of the precarbonation tower where it is contacted by about 1/3 of the total carbonation tower system gas flow. The now partially carbonated green liquor at the bottom of the precarbonation tower has absorbed hydrogen sulphide to the extent that all the sodium sulphide present in the incoming green liquor has been converted to sodium hydrosulphide; also, a significant quantity of carbon dioxide has been absorbed with the consequent conversion of some sodium carbonate to sodium bicarbonate. Under these conditions, the liquor attains its maximum hydrogen sulphide vapor pressure and it is at this point that the hydrogen sulphide content of the flue gas is at its maximum and is taken off for return to the furnace.

5. The liquor is then routed through the remaining or "main" carbonation system countercurrent to the flow of approximately 25% of the flue gas resulting from combustion. The liquor absorbs carbon dioxide and releases hydrogen sulphide, and the gas gives up carbon dioxide and takes on hydrogen sulphide. It is expected that the hydrogen sulphide content of the flue gas returned to the furnace will be about 5% by volume. A large tank is provided for storing the carbonated liquor, again to permit out-of-phase operation of the towers and the furnace.
6. A packed sulphiting tower is provided to scrub the SO_2 from all the gases leaving the venturi scrubber. Carbonated liquor is used as the scrubbing medium.
7. The sodium makeup to the system will be added to the carbonated liquor storage tank as a sodium carbonate solution, and it is intended that this addition be by automatic level control.
8. The sulphur makeup will be by burning raw sulphur in the furnace, or by a separate sulphur burner, with introduction of the resulting sulphur dioxide into the flue gases prior to the sulphiting system. It is conceivable that salt cake could also be used as makeup by addition to a liquor mixing tank prior to incineration in the furnace.

In designing the pilot and commercial installations of the Mead NSSC recovery system, we have been very appreciative of the health hazard involved in handling large quantities of flue gas containing up to 5% hydrogen sulphide by volume. Hydrogen sulphide is generally considered to be rapidly fatal to humans when present in concentrations over 1/10 of 1%. Its dangerous aspect is not so much that it is toxic in small quantities, it is not much different than sulphur dioxide in that respect. However, it is treacherous because dangerous quantities paralyze the sense of smell, depriving the endangered personnel of warning. Being aware of the hazard, no one was injured during the pilot operation. On both commercial installations, all of the carbonation towers and the major portion of the hydrogen sulphide bearing ductwork is out of doors. Much of the ductwork is under suction. Those hydrogen sulphide bearing ducts that run into the boiler house are separately enclosed, and the enclosure is ventilated. The operators will be carefully instructed in proper operating procedures, a basic operating rule being that the system must be run without any discernible hydrogen sulphide odor at all.

In any commercial installation of the Mead recovery system, the overall recovery efficiency naturally depends on losses throughout the mill. With a modern NSSC mill and Mead type recovery system, we are thinking that an overall plant recovery efficiency of 80% to 90% of the sodium and 75% to 85% of the sulphur fed to the digesters may be attained . . .

The Mead, Watervliet and Babcock & Wilcox Companies appreciate that there is an element of risk in scaling up a pilot plant operation to commercial size. However, we are all optimistic that we have come a long way in the development of a practical commercial sodium sulphite recovery process.



SCHEMATIC DIAGRAM OF "MEAD SYSTEM" AT HEALD DIV., LYNCHBURG

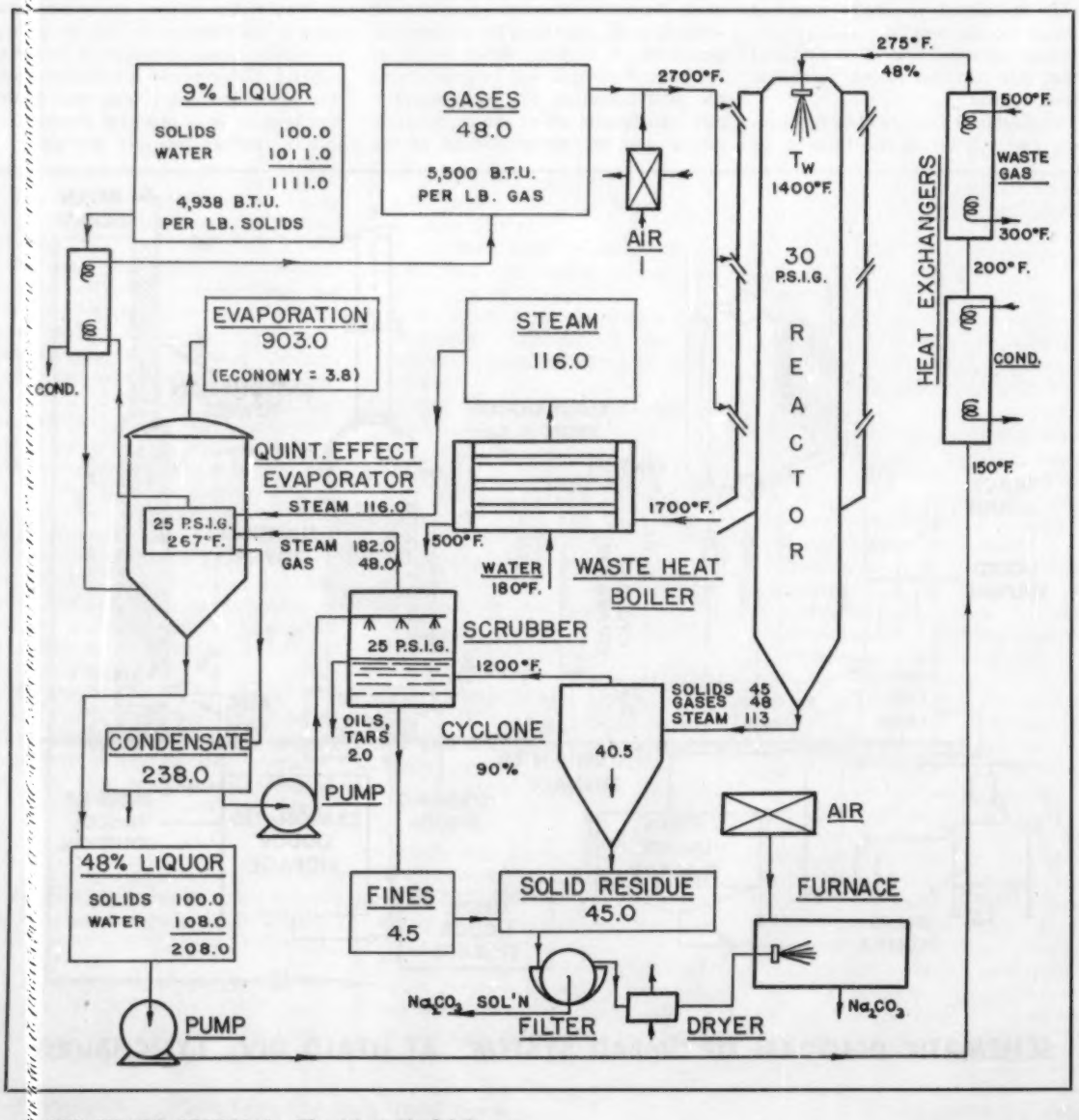
Chemical Recovery From NSSC Waste Liquors by the Atomized Suspension Technique

C. Lee and W. H. Gauvin
Pulp and Paper Research Institute of Canada

The atomized suspension technique is a new method of recovering and treating solids from waste industrial streams. As applied to the treatment of neutral sodium semi-chemical liquors, it consists of atomizing the latter in the absence of air or other foreign gases into the top of a tower, the walls of which are maintained at a high temperature. The finely-divided droplets of liquor are entrained down the tower by the water vapor atmosphere in which they are suspended, and pass through successive zones of evaporation, drying and thermal decomposition. During this treatment most of the sodium is converted to sodium carbonate. Separation of the solids, steam and uncondensable gases (SO_2, CO_2 and combustible constituents) is then effected by simple means. (See diagram below.)

The results of an experimental investigation in a reactor 8-in. in diameter and 10 feet high, operating under a pressure of 30 p.s.i.g., were described. High rates of reaction and excellent heat transfer were obtained. The possibilities of an industrial process, thermally self-sufficient, to recover sodium carbonate, sulphur and steam by this technique, were discussed.

The authors offered tables of the estimated plant costs and the annual returns that could be expected. These figures produced at extremely favorable economic assessment of the process.



Board Production and Consumption Trends — First Ten Months

W. F. Wescott and A. A. Newburg
National Paperboard Ass'n.

Paperboard demand reached its peak in the first quarter of 1956, with the tonnage of orders received averaging almost 285,000 tons per week. New orders received since the first quarter of 1956 have eased slightly and it is plain that the paperboard demand this fall is not going to equal the record highs of 1955. Total new orders booked in October, which is a customary high month, averaged 278,200 tons per week, well over any previous October, except last year. Since the first of the year the tonnage of total orders received has been about 1.5% less than at this time last year. This is indicated in the "Days to Run chart" (Figure 1).

The orders received and unfilled of the two main divisions of paperboard, containerboard and boxboard, follow approximately the same general curve, but do not always have the same degree of change. New containerboard orders received this year to date are lower than last year at this time by 0.7 percent, while boxboard orders booked are under last year by 2.4 percent. Figure 2 shows the backlog of unfilled orders expressed as "Days to Run." This term, "Days to Run" is actually an index number with the basic figure being adjusted each six months. By adjusting each six months we reflect the increase in capacity due to improvements in existing machines and new machines installed in the industry. As an example of how the days to run are influenced by increased capacity we show an average of 13.4 days ahead of the machines for the third quarter of 1955. Now if in calculating the days to run we had used the present daily capacity which is based on the production of the first six months of 1956, the 13.4 days would be reduced to 12.5 days. Expressed in another way, the member mills' capacity to produce paperboard in one day has increased approximately 5 percent in one year.

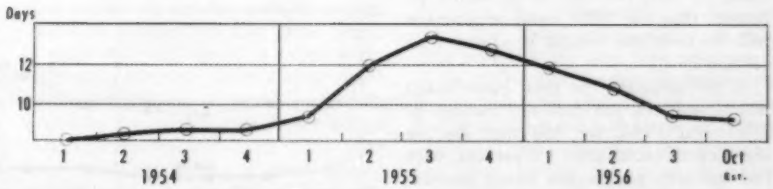


Figure 1—Days to run all paperboard

The backlog of orders ahead of the machines in the year 1954 showed little variation from quarter to quarter, and had an average for the year of 8.5 days. In 1955 there was a greater change between quarters with an average for the year of 11.9 days. This brings us to the current year, with the days to run during the first quarter being at the high for the year, 11.9 days, and showing a decrease for each of the following quarters and also in October.

Activity

The backlog of orders depends not only on the orders received but to a large degree is affected by the operating time of the industry.

The Association shows the time the paperboard machines are in operation by a figure called "Activity". This activity is the industry percent of operation, measured by the inch hour method. This method gives the narrow and the wide machines their proper weight and by a simple calculation we arrive at a weighted percentage which represents the time the industry operated on a week to week and year to date basis. Six day's operations are considered as

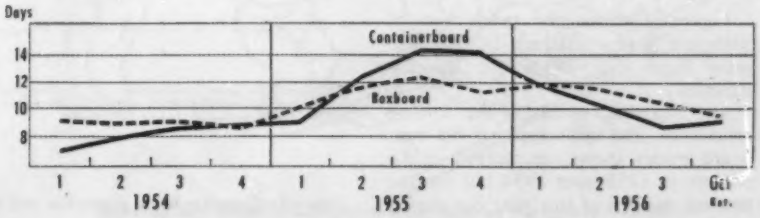


Figure 2—Days to run container board vs boxboard

100 percent activity and seven days operation as 117 percent.

Figure 3 shows that during the first quarter of this year the paperboard machines operated at an average of 100 percent of capacity which means that the average time in use of all machines was 6 days per week. During the past ten months of this year our paperboard machines have operated at 95 percent of capacity. This is one point under the activity for the first ten months of 1955. Stating this another way, the machines this year have run 1 percent or 0.6 of one hour per week less than last year.

Total Paperboard Production

The production of total paperboard during the first quarter of this year was at the highest level in history, averaging 286,100 tons per week. In the third quarter, the average weekly production of 273,600 tons was at the lowest level since the fourth quarter of 1954. However, the production in October is averaging 277,900 tons per week, which indicates that the 1956 total production will be over the record production of 1955.

If we compare the total paperboard production for the first ten months of 1955 and 1956, we find that we are showing an increase of 3.0 percent, with the industry production being approximately 12,075,000 tons. In discussing the time-in-use of the machines we mentioned that the activity was now 1.1 percent less than in 1955, yet we are producing paperboard at a rate of 3 percent higher. The present ten months' production is higher than the full year's production for any year prior to 1953 and is within 444,000 tons of the production for the year 1953, which up until last year we thought was extremely high.

Production of both containerboard and boxboard in 1955 showed a substantial increase over 1954 and that during the ten months of this year the production of both types of paperboard are higher than in 1955. Containerboards are increasing at a greater degree than boxboards. This year to date containerboards are ahead of 1955 by 4.6 percent with boxboards being up 1.3 percent.

Folding Grades

Figure 4 shows the production of boxboard grades analyzed by the four main types on which we develop statistics.

The top line, which is the folding production and the largest of the boxboard grades, showed an increase of 9.6 percent in 1955 over 1954 but for the first ten months of this year has shown a gain over 1955 of only 0.6 percent.

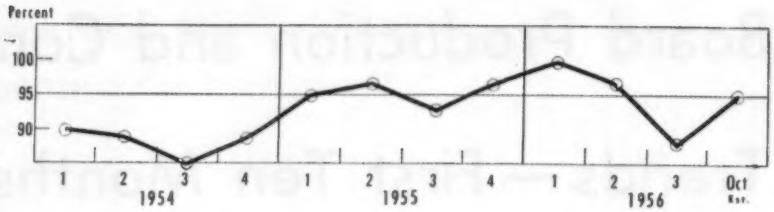


Figure 3—Activity—all paperboard

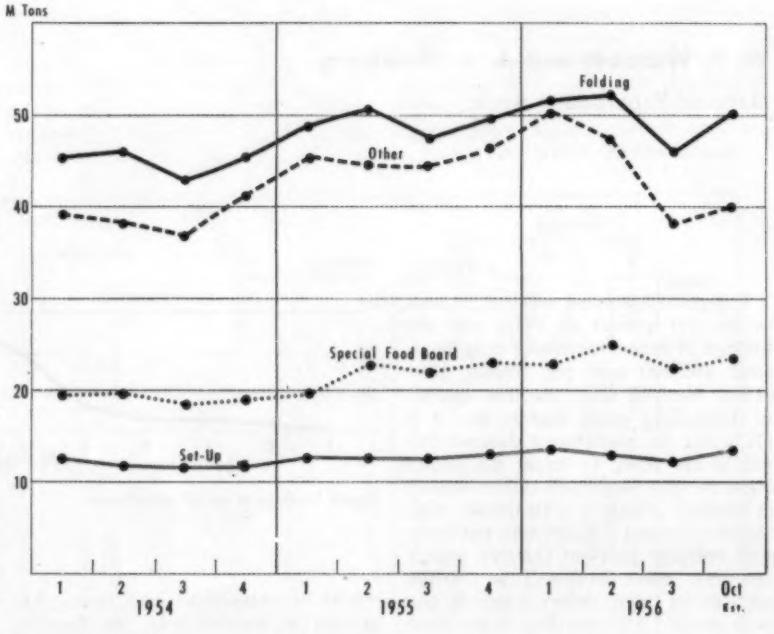
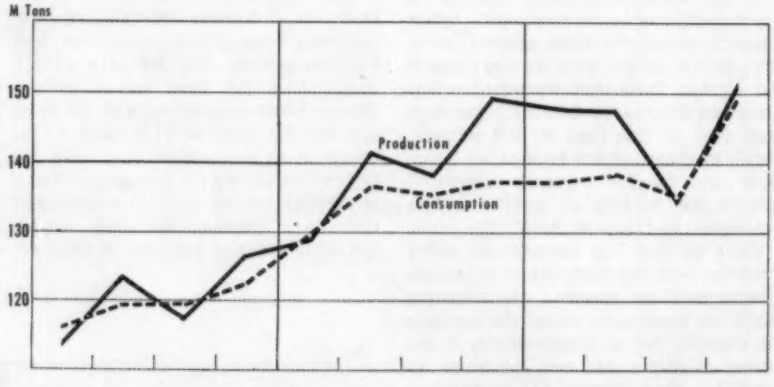


Figure 4—Boxboard production by grades



Difference between production and consumption does not necessarily correspond with actual changes in inventory. This is due to either containerboard being used in other fields or materials other than regular containerboard being consumed.

Figure 5—Container board production and boxboard consumption

This percentage gain is not as large as shown by some of the other boxboard grades and indicates that this group is losing some of its position in the total boxboard field. Folding now represents 38.2 percent of the total, compared with an average of 43.6 percent back in the six year period, 1940 through 1945.

Set-up Board

Set-Up paperboard production has also been losing its proportion of the total boxboard field. In the six years, 1940 through 1945, set-up boxboard represented 16 percent of the total but during the past ten months have accounted for slightly less than 10 percent which is approximately the same proportion of the total as last year. Even though the set-up grades are losing in their proportion of the total, the production is showing a slight increase. The average weekly production for the first ten months of 1956 is 12,800 tons which is 1.2 percent ahead of the production in the same period of last year.

Special Food Board

Special food board is the largest growth item in the boxboard field, caused by the buying habits of the housewife who likes the convenience of the paper milk bottle, and being able to buy more and more food in the frozen form. The production of special food board has increased every year. The chart shows the growth during the past three years but doesn't illustrate the rapid growth of this type of board. It wasn't until 1949 that the production of special food boards averaged 10,000 tons per week. Now the average weekly production during past ten months is over 23,000 tons, approximately an increase over the first ten months of last year of 7.5 percent. Back in 1949, special food board made up only 11.2 percent of the total boxboard, while this year their proportion of the total is 17.8 percent.

The fourth grade that is included in the boxboard side of the industry is called "All Other". This grade, as the name implies, includes all boxboard manufactured for uses other than conversion into folding and set-up cartons and for the packaging of moist, oily or liquid Foods, and also includes the tonnage of exports of every grade of paperboard.

You will notice that the production trend of all other during the past three years has been almost the same as folding. The production of all other so far in 1956 is practically the same as the production last year at this time, averaging about 45,000 tons per week.

Cylinder Liner

The production tonnage of cylinder kraft liner during the last three years has remained practically stationary but that its proportion of the total decreased each year. Jute liner is not showing a pronounced cut-back tonnagewise but each year makes up less of the total liner production. During the period 1940 through 1945, jute liner represented 41.5 percent of the total liner produced; by 1955 it had dropped to 17.7 percent and during the past ten months of 1956 only represents 15.9 percent of the total.

Fourdrinier Liner

Fourdrinier kraft liner production has shown a steady increase in tons and in the proportion of the total. To illustrate this growth, we will again use the year 1940 through 1945. During this six year period fourdrinier kraft liner averaged 49.7 percent of the total, compared with 78.9 percent in 1955 and 80.8 percent during the first ten months of this year.

Corrugating Material

Corrugating material production has also undergone similar shift in grades. The shift during the last three years, is quite marked but it is much more impressive when we make a comparison of the corrugating material production by grades during the years 1940 through 1945 and the ten months of 1956. Both other and semichemical have shown marked gains in position. In the period, 1940 through 1945, other represented 18.7 percent of the total compared with 21.2 percent during the past ten months, while semichemical in the same six year period only accounted for 22.0 percent of the total and this year to date represents 64.1 percent. Kraft and straw corrugating material have absorbed the decrease in the proportion of output.

Containerboard Consumption

We have mentioned the increased output of containerboard during the ten months of this year which have averaged 144,600 tons per week and which extend to the end of the year would give us a total for 1956 of roughly 7,500,000 tons for a new record high, last year was 7,283,000. Consumption this year is also setting a new record with a weekly average during the past ten months of 138,400 tons. (See Figure 5) Projecting this figure for the balance of the year gives us a total consumption for 1956 of 7,200,000 tons against 7,042,000 tons last year.

In balancing the containerboard production with the consumption and the inventories, we find that there is a diversion of containerboard to uses other than for shipping containers, running between 2½ and 3 percent.

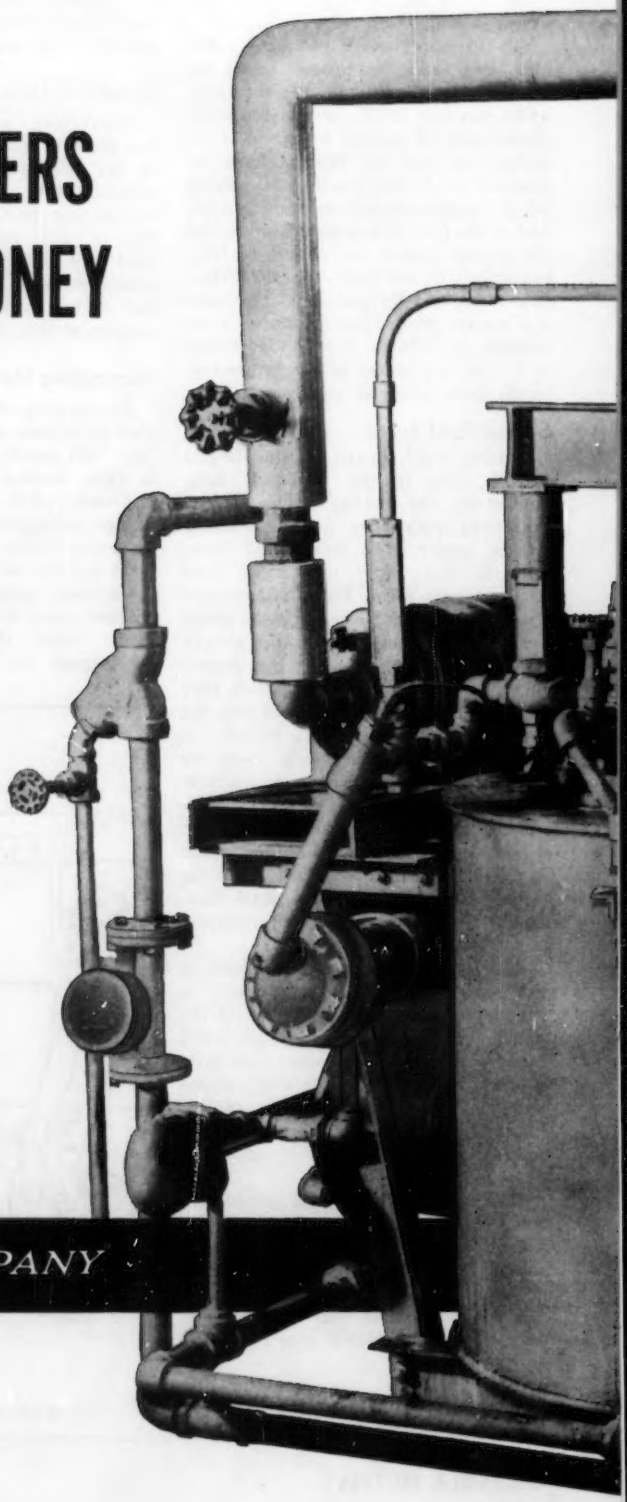
As of October 1st the inventory held by box plants amounted to 883,600 tons and in addition we had a mill inventory of 68,000 tons. Based on the consumption rate during the previous three months, omitting the holiday weeks, this inventory represents about 6.3 weeks of supply.

Make up half dozen prints and display them on the safety boards.

*There must be reasons for leadership**

FOR EXAMPLE: HERCULES AUTOMATIC EMULSIFIERS HELP MILLS SAVE MONEY

Hercules has assisted in the industry's progress by designing mechanical improvements for mill operations. The development and extensive use of the Hercules Automatic Emulsifier is typical of these innovations. More than 125 of these units are now in use helping mills lower labor costs, reduce space requirements and obtain greater uniformity of emulsion concentration and quality of size emulsion. If you are interested in learning more about this equipment, one of our technical representatives will be glad to discuss it with you. Just write:



Paper Makers Chemical Department

PP56-6

HERCULES POWDER COMPANY

962 King Street,
Wilmington 99, Delaware

**Hercules is the acknowledged leader in rosin size and other chemicals for papermaking.*

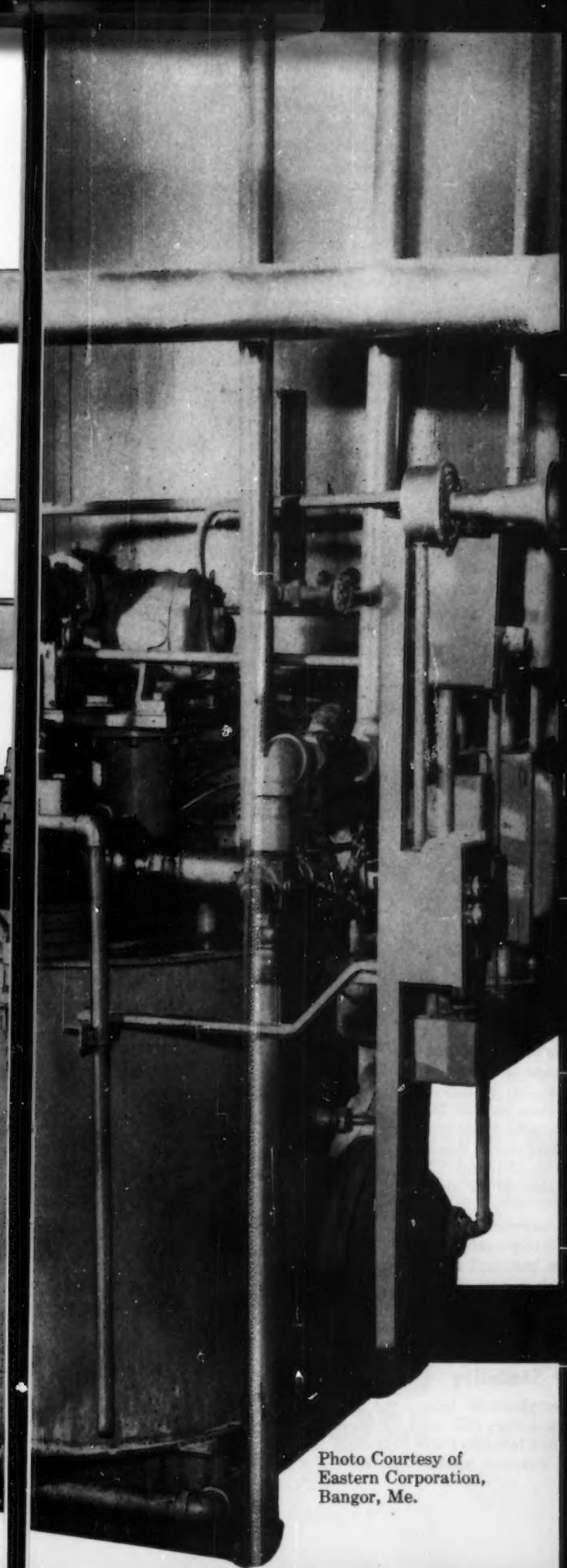


Photo Courtesy of
Eastern Corporation,
Bangor, Me.

SOME REASONS FOR HERCULES LEADERSHIP

UNEQUALED TECHNICAL SERVICE
A staff of more than 50 technically trained men are thoroughly grounded in the cumulative experience of 40 years' mill and laboratory service to the paper industry. Such company experience results in an understanding of the requirements of the paper industry and is reflected in the variety and dependable quality of the products designed to meet them. One of these men is always as near as your telephone.

FORWARD-LOOKING CHEMICALS
From Hercules research come new products designed to anticipate your needs for improved chemical materials. Whether it is a new grade of size based on rosin or a completely new concept, you can look to Hercules for progressive leadership.

UNMATCHED DISTRIBUTION FACILITIES
Hercules maintains by far the largest number of plants and strategically-located distribution points of any rosin size manufacturer. This is your assurance that the product you want will be delivered when and where you want it.

A SIZE FOR EVERY NEED
Hercules' large number of sizing grades means there is one available to meet practically any requirement. For unusual problems, Hercules can formulate a custom-made grade to fit your specific need. Hercules assures you the lowest possible sizing cost by recommending the right grade for your specific needs.

PACE-SETTING RESEARCH
The most extensive research and technical service facilities devoted exclusively to papermaking are maintained by Hercules. The Hercules laboratories are always at the disposal of customers in helping to solve sizing and other papermaking problems.

VARIETY OF PRODUCTS
Hercules is also a leading source of other high-quality papermaking chemicals. Wax emulsions, wet strength resins, defoamers—to name but a few made by Hercules—incorporate the same degree of skilled processing improvements that are found in Hercules'® rosin sizes.

DEPENDABLE SOURCE OF SUPPLY
Hercules' many facilities for producing rosin and rosin size assure you of a thoroughly dependable source of supply.

SAVINGS IN SHIPPING
Hercules has pioneered many improvements in rosin size distribution. The freight and handling savings made possible through the introduction of dry size and higher solids paste size, both in tank truck and tank car shipments, are typical examples.

HERCULES POWDER COMPANY
INCORPORATED

NEW EQUIPMENT AND SUPPLIES

Durable Chain for Wet Process Kilns

An improved "Thermopruf" chain system for wet process kilns in the cement, paper and chemical industries has been announced by Allis-Chalmers Manufacturing Co., Milwaukee, Wisc. Components of the new system are said to provide longer wearing qualities plus greater corrosion and heat resistance than any steel type kiln chain.

The links are joined by inserting one leg of an open "Thermopruf" link through the loop made by legs of preceding links after they are pressed closed in an ordinary vice. This procedure results in less downtime for chain make-up and replacement. Also part of the system is a newly designed shackle and connecting link. The shackle resembles a heart outline with two valleys, one for each end link. This double arrangement keeps end links from riding each other and greatly reduces wear on both end links and shackles. The end connecting link is pear-shaped and tapered. Cross section areas are sized for the points of greatest wear.

Defoamers, Particularly for Alkaline Stock

New types of defoamers for paper mill use, available from E. F. Houghton & Co., 303 West Lehigh Avenue, Philadelphia, Pa., include both liquid and paste consistencies. The pastes, De-Airex 526, 527 and 530, are particularly adapted for application to alkaline stock and unbleached kraft pulp.

De-Airex 526 is effective in screening and thickening operations. Alkaline cooking liquor not washed out completely causes foam bubbles in the pulp which seal off openings in the screens. By adding De-Airex 526 to the pulp before screening, these bubbles will be eliminated. Where de-inking is employed to eliminate impurities requiring the use of caustic soda and increasing the pH, De-Airex 526 and 527 (the latter a softer paste) are recommended. The same products are a definite aid when foam occurs in sulphite screening.

An anionic paste defoamer for acid stocks—De-Airex 530 is unusual in its ability to kill foam without causing sticking at the Dandy roll or on the first press roll. The agent is also reported effective in sulphite pulp mills that have a problem due to poor washing. It remains active through the thickening process.

De-Airex 528 is an anionic liquid defoamer developed for use where paste-type products cannot be employed. Others in the liquid class include De-Airex 516, a non-ionic soluble oil type which works best on acid stock. Where cold weather is prevalent, De-Airex 529 is often preferred because of its lower freezing point (5° F.).

These various De-Airex defoamers, as well as Surfax rewetting agents, are described in a 16-page technical booklet, "Houghton Products for the Paper Industry."

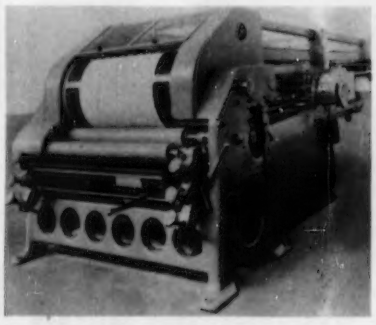
Latex Coating Provides Improved Color Stability

A new butadiene-acrylonitrile latex known as Chemingum Latex 247 has been introduced by the Chemical Division of the Goodyear Tire and Rubber Company, Akron 16, Ohio. The latex was developed to give improved resistance to discoloration upon exposure to heat or light. In addition to its reported excellent adhesion and fiber binding qualities, the latex is especially suitable for use in textile inks, nonwoven fabrics, textile backcoatings and sizings, leather finishes, pigmented paper coatings and carpet backings.

The emulsification system in 247 is of the synthetic anionic type and provides good stability for compounding and processing. The latex does not show the extreme sensitivity to copper and metal ions that is characteristic of natural rubber and many GR-S latices.

Conventional rubber curing systems can be used with the latex when additional tensile strength or solvent resistance is required. Water soluble thermosetting resins also are compatible and can be used to give increased adhesion and solvent resistance.

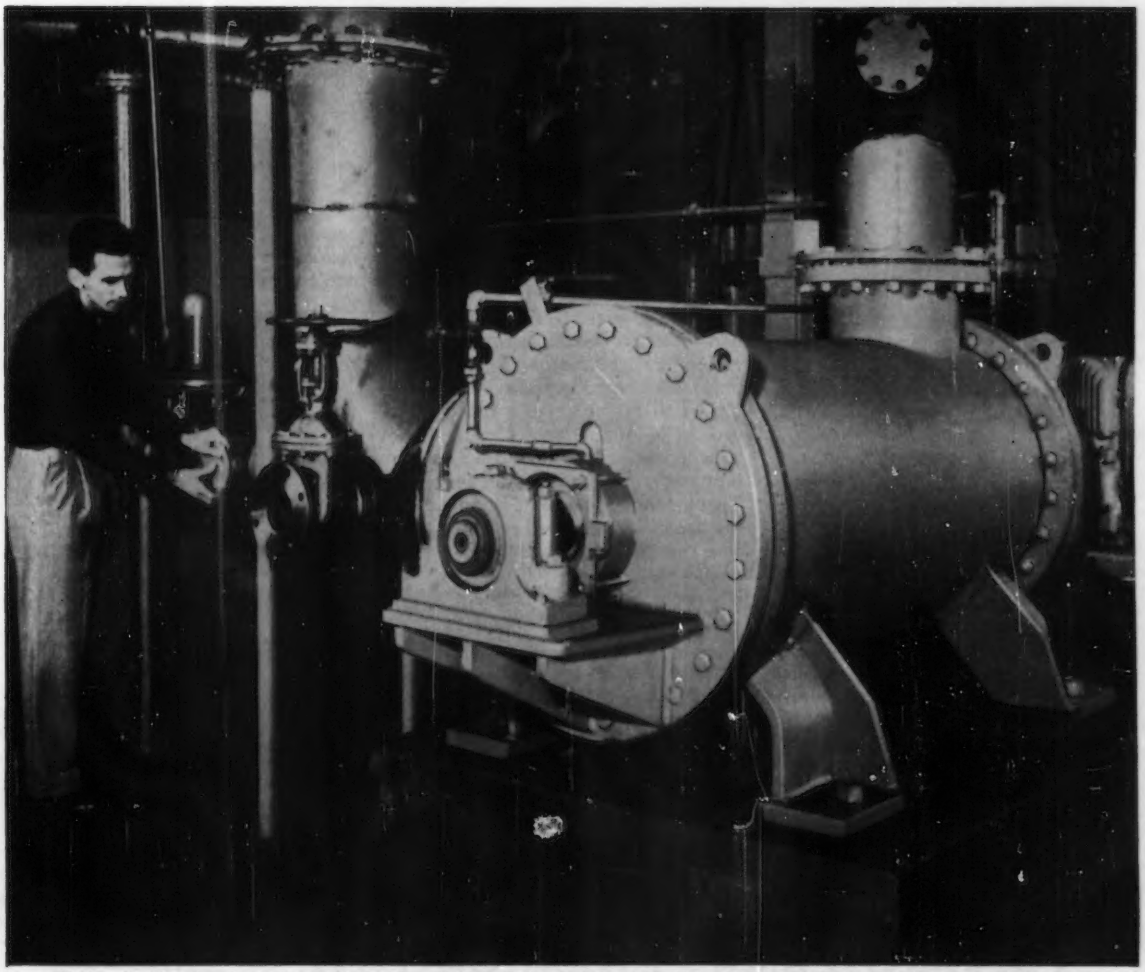
Improved light aging of films deposited by Chemigum Latex 247 has been demonstrated by Fade-Ometer tests and by actual roof exposure. While the clear film will show about a four-fold increase in light stability, pigmented compounds show even greater improvement.



Imported Varnishing Machine

The popular German-made Jagenberg varnishing and coating machine will soon be available to American industry. The machine can coat overall sheets from 50″ wide to 59″ long up to 25 per minute. It can also be equipped with attachments for edge and strip coating.

Papers and cardboards up to 0.04″ thick are hand fed. Thereafter, the coating and delivery operations are automatic. The coating section of the machine consists of three rollers—a brass dip-roll, pressure-roll and doctor-roll. The pressure and doctor roller are rubber jacketed. An automatic feeler prevents the coating rollers from contacting the feed cylinder except when a sheet is fed correctly. Agents are Potdevin International, Ltd., 285 North Street, Teterboro, N. J.



Chlorine dioxide mixer in service at the Carolina Division of Riegel Paper Corp. The unit was manufactured by Improved Machinery Inc. It is lined with ⅛" REM-CRU A-70 titanium sheet.

TITANIUM tames chlorine dioxide bleach

Improved whiteness and reduced fibre degradation—they're the benefits of bleaching with chlorine dioxide. But this fine bleach is also a strong corrosive—it's been known to ruin even very special alloys in five hours.

But there's a way out—*titanium*. Extensive tests have shown titanium to be *virtually immune* to chlorine dioxide attack—in fact, titanium parts are still in service after thirteen months' exposure. That's why the new chlorine dioxide mixer, shown above at the Carolina Division of Riegel Paper Corporation, has all contact surfaces made of REM-CRU titanium.

Titanium's unique properties can help solve other pulp and paper mill materials problems, too. It's strong as steel, for example, yet 44% lighter . . . it withstands attack by an extremely diverse group of corrosive media . . . it is immune to stress-corrosion cracking . . . it is not subject to cavitation corrosion and erosion.

No wonder titanium outlasts other materials by as much as 10, 20, even 50 times! Though titanium equipment may cost two or three times more than that made from other materials—*titanium's longer service life rapidly wipes out this cost differential.*

Where materials failures have been eating into profits—think of REM-CRU titanium. A REM-CRU engineer is well qualified to help you work out specific applications.

To keep abreast of the latest developments on this vital metal, write to Dept. PT-12 for the Rem-Cru Review—a free periodical presenting the latest technical data on titanium alloys.

REM-CRU TITANIUM

REM-CRU TITANIUM, INC., MIDLAND, PENNSYLVANIA

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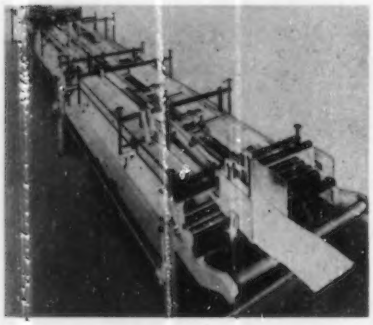


Gluer, German Import:

The German-made Jagenberg folding box gluer will be sold in the U. S. by Potdevin International, Ltd., 285 North Street, Teterboro, N. J. The machine is a unit designed for small and medium box runs at speeds up to 200 feet per minute, with provision for quick change-over for a wide range of sizes.

Essentially, the machine is comprised of an automatic rubber belt feeder, a continuously running gluing station, collecting delivery and pressure belts and an electro-mechanical counter marking every 50th carton. The range of adjustments are from 1 3/16" to 12 13/16" folded flat and 4" to 15¾" in length. Two operators can handle all the box requirements unassisted. Dimensions of the machine are 18 ft. x 4 ft. 3 inches.

SPECIAL ANNOUNCEMENT

A new, continuous roll stand, designed to streamline finishing room methods and increase output, will be introduced to the industry at Tappi. This new type stand also eliminates the "waste" space problem so common with conventional roll stands.

(Advertisement)

New Pump Motors

A complete line of totally-protected, vertical solid shaft P-base motors for all vertical pump installations is announced by Reliance Electric and Engineering Company, 1088 Ivanhoe Road, Cleveland, Ohio.

The new motors, with normal thrust bearings in all sizes from 1 to 40 horsepower and high thrust in sizes from 1 to 15 horsepower, are available in protected, totally-enclosed, or explosion-proof enclosures. Designed for indoor and outdoor installations, all of the motors are reported corrosion-proof for long, safe operation under adverse conditions as are frequently found in the process industries. Shafts are sealed by a neoprene slinger that protects bearings and windings from foreign matter. The mounting flange face and rabbet fits are machined after assembly to assure perfect mating with the pump flange and to provide positive shaft alignment for quiet operation.

Taper Face Flange To Protect Valves

The recently introduced Tube-Turn 125 pound taper face light weight welding neck flange is said to offer important technical and cost advantages where the lighter schedule of pipe must be connected to 125 pound cast iron valves and other equipment. It is manufactured by Tube Turns, Louisville, Ky., a division of National Cylinder Gas Co.

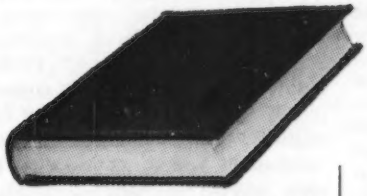
The flange, on which a patent is pending, is designed to overcome two difficulties. First, its tapered face causes greater pressure to be exerted near the bore. This eliminates the usual problems met in obtaining a leakproof seal when a conventional flange with a full face gasket is used. Second, strain gage tests have shown that the new flange, equipped with a full face gasket, can be safely bolted to cast iron or semi-steel flanges.

Blower Motor Cooled By Its Air Stream

A new line of totally-enclosed air-over a-c. motors has been introduced to produce varying horsepower according to the application of varying air velocities. The effect is accomplished by the cooling flow of air over the motor frame created by the fan or blower it powers. Power output can thereby be increased without exceeding the rated temperature rise of the motor. Features

Don't speak to me in that 'shift boss' tone of voice buster!

How *auxiliary* paper mill equipment operates



How to select and apply it for better results

8 information-packed chapters:

1. Instrumentation and Process Control
2. Pumps, Pumping Apparatus, and Agitation Equipment
3. Materials Handling
4. Heating and Ventilation
5. Steam
6. Water
7. Electrical Equipment
8. Bearings and Lubrication

In terms of practical use in the mill, this final volume in the PULP AND PAPER MANUFACTURE Library discusses the principles, methods, and applications of all the modern auxiliary equipment that contributes to more efficient production of pulp and paper.

It covers those departments that supply water, steam, power, electricity, ventilation, handling of fluid and solid materials, and lubrication. Process control and the instruments involved is just one of the current developments described in detail and at length. Modern advances in the steam plant, ventilation, water purification, and the like also are given close attention.

The information in Volume Four supplements the three preceding books which cover manufacturing pulp, preparing stock for papermaking, and paper and board making machinery.

So as to be of most use to machine operators and trainees, to instrument technicians and others in the technical end, all the material was selected and prepared by men concerned and conversant with mill equipment and operations.

PULP AND PAPER MANUFACTURE

Volume Four

AUXILIARY PAPER MILL EQUIPMENT

Prepared under the direction of the Joint Committee on Vocational Education representing the Pulp and Paper Industry of the United States and Canada

J. NEWELL STEPHENSON, Editor-in-Chief *732 pages, 6 x 9, 343 illustrations, 36 tables, $9.00*

Here's practical help on such matters as:

- Application of instrumentation peculiar to the pulp and paper industry
- What to do when things go wrong in temperature instruments, pressure instruments, flow and liquid-level installations using differential manometers
- Instrumentation in sulphite-mill, bleach plant, sulphate-pulp mill, semichemical batch operation, deinking, etc.
- Process control in stock preparation
- Paper machine instrumentation
- Recommendations for pump rods, shafts, and valve stems
- How to analyze materials handling problems
- Heating and ventilating and its effect on the product, the building, and the workmen
- Principles of air and paper-conditioning
- Burning waste liquor
- Example of calculating generator performance
- Instrumentation and control in the steam plant
- Disinfection of fresh water and white water
- A.C. motor types and common applications in the mill
- Hints on installation and maintenance of motors
- Troubles of electrical equipment—their symptoms, causes, and remedies
- Lubrication of the paper machine
- and many, many more

In this collection of essential data and explanations of auxiliary equipment all descriptions and discussions are based on applications familiar to mill men. For example, the first chapter—over 250 pages in length—gives operating principles of indicating and recording instruments and their application to the control of critical variables in processes with which you are familiar.

The same is true of the materials handling processes, both fluid and solid. You get principles of common and specialized pumps for moving pulp suspensions and creating vacuum . . . designs for storage tanks with agitators that keep fibers in suspension . . . and a complete discussion of methods and equipment for handling dry materials — from incoming to outgoing stages, and between processes.

Everything is described and discussed from the point of view of fulfilling requirements peculiar to mill operation — heating and ventilating, producing steam, getting clear water, types of electrical equipment, bearings and lubrication.

Send remittance with order. Book Dept.

LOCKWOOD TRADE JOURNAL CO., INC.

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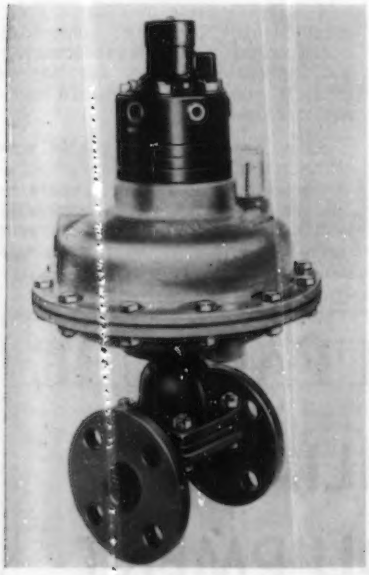
NEW YORK 36, N. Y.

of the new line include cast iron ribbed frame construction, oversized double-shielded ball bearings, and metermatic lubrication with automatic grease relief. Other advantages lie in the fact that heavy formvar nylon coated magnet wire is used for coils, with six coats of special insulating varnish.

The motors are available in the new NEMA frame sizes from ½ through 30 horsepower and may be operated on 208 volt network systems. Manufacturers are Relience Electric & Engineering Co., 1088 Ivanhoe, Road, Cleveland, Ohio.



Air-Operated Control Valve

Air operated Saunders patent type control valves are currently being produced by the Uniflow Valve Corp., 19 Quine St., Cranford, N. J.

A unique diaphragm method of closure is reported to obtain a positive drip-tight shut off. Other features are no stem packing or stuffing box, streamlined flow passages, and freedom from clogging or sticking. Available options are handwheel type limit stops, plastic position indicators, and micro-switch attachments for visible and audible signals. The valves, designed for use in water treating, chemical and process industries, are made in sizes for use with ½ to 6 inch piping.

Light, Low Cost Pressure Transducer

A small, low-cost pressure transducer for both airborne and ground applications has just been announced by The Bristol Company of Waterbury, Connecticut.

This new transducer is designed for reliable and accurate service with a wide variety of fluids, including all jet and piston engine fuels, lubricating and hydraulic oils, and air, carbon dioxide and oxygen. Output signals may be either linear or to any desired curve, as required for actuating the appropriate control or measuring system.

The transducer will normally be available in pressure ranges of from 0-2 psi to 0-250 psi, although other ranges can be supplied as required. It will be offered with potentiometer cards in resistance ranges of from 0-2000 ohms to 0-20,000 ohms. Current rating of a typical potentiometer is 10 ma at 5200 ohms, although other requirements can be handled. Models with resolution of better than 0.1 percent are available.

Fitted with standard 3-pin connector plug terminals, and ⅛" ANPT or 7/16" —20NF3 pressure fittings, the units are hermetically sealed; all materials have been selected for galvanic similarity. Weight is only 6 ounces.

NEWS OF ASSOCIATIONS

Connecticut Valley Supts. To Hear Silverstein

Saul M. Silverstein, president, Rogers Corp., Rogers, Conn., widely known for his firm's policies and practices in labor relations, is to be the guest speaker at the January 11, 1957 Dinner Meeting of the Connecticut Valley Division of the Superintendents Association. His talk will deal primarily with his philosophy of labor relations.

The place of the meeting is the Roger Smith Hotel, Holyoke, Mass. Dinner is planned for 7:30 P.M.

Mr. Silverstein has been associated with the Rogers Corp. since 1930. From 1930 to 1938, he served the firm as technical director. In 1938, he was made vice president and general manager. Eight years later, he was elected president.

He is a graduate of the Massachusetts Institute of Technology, has taught Chemical Engineering at the same institution, and has served as Director, Industrial Research Division, Bigelow-Kent-Willard (a consulting engineering firm), Boston.

At the time Mr. Silverstein became general manager of the Rogers Corp., the firm was making electrical insulating papers with an annual volume of $600,000. Today, the firm is making plastic molding materials, shoe materials, and a diversified line of sheet products in addition to the insulating papers. The annual volume now is $6 million.

Aside from his business interests, Mr. Silverstein has served our government on several important international matters. At present, he is secretary of the Council for International Progress in Management (formerly the National Management Council.) This organization recruits and organizes work of the management teams sent abroad by our Government.

Walter Dempsey, Doeskin Products Inc., Mount Tom, Northampton, Mass., will introduce Mr. Silverstein. Mr. Dempsey is Chairman of the Connecticut Valley Division of the Superintendents Association.

Dr. Lewis to Address Michigan Papermakers

Dr. Harry F. Lewis, Dean Emeritus, Institute of Paper Chemistry, Appleton, Wis., is to address the 1957 Annual Papermakers' Get-Together, Joint Dinner Meeting of the Michigan Division of the Superintendents Association, and the Kalamazoo Valley Section of TAPPI, on January 24, 1957 at Hotel Harris, Kalamazoo, Mich. He is to speak on "Man Power Procurement in the Paper Industry."

P. D. Applegate, Hercules Powder Co., Kalamazoo, Mich. is Chairman of the meeting; John Lean, Rex Paper Co., Kalamazoo, Mich., the toastmaster.

The dedication of the new building for the Department of Paper Technology, Western Michigan College, Kalamazoo, Mich., will take place on the campus in Kanley Chapel on the morning of January 25. This dedication is not actually a part of the Annual Papermakers' Get-Together program; yet is very closely allied to it.

Following the dedication ceremony, there will be an inspection of the new laboratories.

Central Empire TAPPI Hears Jones' Vickery

At the December meeting of the Central District, Empire State Section of TAPPI, Charles H. Vickery, vice-president of E. D. Jones & Sons in Pittsfield, Mass., addressed the group on "Paper Stock Refining."

The meeting was held December 7 in the University Club, Syracuse, N. Y.

Waste Paper Council Sets Objectives for 1957

Cleaner waste paper is the 1957 goal of the combined efforts of the paper, paperboard and waste paper industries, as indicated by action taken at the annual meeting of the Waste Paper Utilization Council, which was held this month at the Hotel Commodore, New York. At this meeting it was decided to continue and intensify the program of the Council which includes an educational campaign to induce generators of waste paper to withhold at the source deleterious materials. The sixth leaflet in a series directed to the graphic arts industry was distributed to the 48 members assembled. For the year 1957 this program will be continued in somewhat more simplified form and with greater emphasis on pictorial presentation. The objectives of the Council will also be pursued through contacts with suppliers of paper additives and others who are in a position to help in attaining the aims of the industry.

Bartow Kelly, purchasing agent of Crocker, Burbank, was elected chairman of the Council to succeed R. W. Hynes, president of Newton Falls Paper, G. E. Dyke, vice-chairman of the board of Continental Can, was re-elected vice-chairman. B. H. Cooper, vice-president of Kalamazoo Paper, was elected to the Joint Committee to succeed R. W. Hynes. The treasurer and assistant treasurer are E. W. Tinker, executive secretary and R. E. O'Connor, assistant executive secretary, respectively, of the American Paper & Pulp Assn.

Announcement was made by Ralph W. Kumler, director of the Council, that during the current year 19 new memberships had been received, 2 consuming members and 17 associate members. At a meeting of the Joint Committee, the governing body of the Council, in the afternoon, 14 new advisory memberships were approved. All of the new advisory members are executives of local and national graphic arts associations.

Pacific Superintendents Hold Big Portland Meeting

Several hundred Pacific coast mill superintendents and affiliates attended the annual division meeting of the Superintendents Assn., in Portland, Ore. earlier this month.

Registration in excess of 300 was reported by Max A. Bailey, superintendent of paper machines at Westminster Paper Co. and chairman of the division.

Among the superintendents having a role in the program were R. E. Harper, general manager of R-W Paper Co., Longview, who discussed glassine papers now being produced by the mill; Peter P. Taranoff, supervisor at Crown Zellerbach's St. Helens mill, who detailed the tissue production methods of that operation.

Round table sessions were led by L. D. McGlothlin of Crown Zellerbach's Camas kraft mill; L. A. LeFond, C-Z of Lebanon for the sulphite process group; Cecil Knapp, C-Z, Camas, on finishing; and Henry W. Dauterman, Longview Fibre Co., papermaking.

Tours of the mills in Vancouver, Camas, St. Helens, Longview, and Oregon City and West Linn were well attended.

Pulp Importers Elect

At the regular annual meeting of the Association of American Wood Pulp Importers on December 12, officers and directors of the Association were elected to serve during 1957. These new officers are: President Karl Clauson (president, Stora Kopparberg Corp.), Vice-president William B. McGoldrick, (manager of Price & Pierce, Ltd.), Treasurer William Flohr (vice-president of Parsons & Whittemore, Inc.), Secretary Per Westad (vice-president & secretary of Borregaard Co.).

The above four officers succeed, in the order listed, Dr. Allan C. Hill, Karl Clauson, V. Ramsay, and Per Westad was re-elected. Dr. Hill, first vice-president of Montmorency Paper Co. was elected a director of the Association, in addition to the four officers of the Association.

V. Ramsay was specially honored at the meeting as he was terminating eleven successive years service as treasurer.

Northeastern Supts. Make '57 Plans

Frank A. Knight of Eastern Corp. who is current chairman of the Northeastern Division of the Superintendents Assn., met recently with James B. Gabler of Fleetwood Chemical Co., who is Northeastern affiliate representative. They selected chairmen for the different committees to function for the 1957 fall meeting of the Division. This meeting is scheduled for September 19-21 at the Poland Spring House, Poland Spring, Maine.

Many innovations are being planned for both the technical and social functions. The Ladies Program Committee, under the chairmanship of Mrs. Frank Knight, will feature a trip through the Bates Mfg. Co. mill, Lewiston, Maine, one of the largest cotton goods manufacturers in the world.

OBITUARIES

John Philip Weyerhaeuser Jr., 57, president of Weyerhaeuser Timber Co. died December 8 in Tacoma, Wash. a victim of leukemia. He was stricken a month ago with the disease and had been hospitalized since Nov. 23.

Mr. Weyerhaeuser also was president of the Weyerhaeuser Steamship Co., the American Forest Products Institute, and a director of Boeing Airplane Co.

He was known for his leadership in modern forestry practices and conservation. In 1941, Mr. Weyerhaeuser dedicated the nation's first certified tree farm near Aberdeen, Wash.

John W. Donovan of Holyoke died December 11 in the Providence hospital, following a short illness.

He had been superintendent of the National Blank Book Co. before his retirement in 1926.

Meyer Cohen, 60, sales manager of the Penn Card & Paper Co. of Philadelphia, where he was employed for 47 years, died Dec. 9 at his home.

Joseph Milheiser, 81, retired paper mill superintendent, died Dec. 5 in Muskegon, Mich.

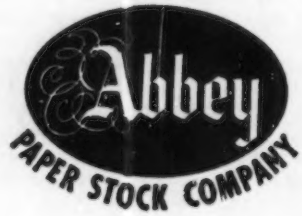
A native of Appleton, Wis., Mr. Milheiser was a paper maker through most of his life. He came to Muskegon from Niagara, N.Y., in 1901 to become superintendent of the Central Paper Mill, now a division of the S. D. Warren Co. He retired in 1940.

Albemarle May Buy Adjoining Iron Works

The Albemarle Paper Manufacturing Co. in Richmond, Va. is considering buying out the Tredegar Co., an iron foundry that borders the paper company's property.

If the proposed deal goes through, Richmond business sources feel that it will mean the end to 120 years of iron manufacture by Tredegar, Albemarle probably would convert Tredegar's buildings into additional paper manufacturing facilities.

The Tredegar firm began operations in 1836 and made munitions during five wars—from the Civil War through the Korean War. In 1841 it made its first anchor chain for the United States Navy. Later it was the armor plate—1,500,000 pounds of it—for the Merrimac-Virginia, of the Monitor battle fame.



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Phila. 25, Pa. NEbraska 4-8811

Packers

Brokers

Graders

of

Waste Paper

PRICES OF FIBERS

MARKET WOOD PULP

FOURTH QUARTER CONTRACT PRICES PER SHORT AIR-DRY TON

	Delivered Basis		Varying Freight Allowances†		
	U.S.	Canadian	Swedish	Finnish	Norwegian
Groundwood	$82.50/ 90.00	$82.50/ 90.00	§$83.00/ 86.00§	$92.00/ —	§$77.50/ 90.00
Kraft. Blchd.	152.00/155.00	155.00/ —	§155.00/ —		§155.00/ —
Kraf , Blchd. Hdwd.	150.00/ —		§137.50/ —		
Kraft, Semi-bleached	140.00/145.00	135.00/140.00	§135.00/140.00§	*137.50/142.50	
Kraft, Unbl.	117.50/125.00	120.00/130.00	†125.00/130.00	125.00/ —	
Sulphite, Blchd.	150.00/ —	150.00/ —	*150.00/ —	*150.00/ —	145.00/147.50†
Sulphite, Unblchd.	130.00/ —	130.00/ —	†130.50/ —	*130.00/ —	
Sulphite, Unb'l. Gl'sn		129.00/ —	†129.00/ —		
Soda, Blchd.	142.50/145.00	145.00/ —			

§ On Dock Atlantic Ports. * Freight allowed.

NEW YORK RAG MARKET

New Domestic Cotton Cuttings
Delivered Mill Basis
PRICES NOMINAL

	Per 100 lbs.
No. 1 White Shirts	$14.25/$14.75
No. 1 Unblchd. Muslins	16.25/ 17.00
Blchd. & Unblchd. Underwears	15.00/ 15.75
No. 1 Light Silesias	7.00/ 7.75
No. 1 Light Blue Overalls	7.25/ 8.00
Percales	6.00/ 6.75
No. 1 Light Prints	5.25/ 5.75
Suntan Khakis	5.50/ 6.25
Cottonades	3.25/ 3.75
No. 1 Washables	2.75/ 3.25

Old Domestic Cotton Rags
(Prices to Dealers, F.o.b. Ship. Pt.)

	Per 100 lbs.
Mixed White	$3.00/$3.25
Cotton Pants & Overalls	2.00/ 2.25
Twos and Blues, Repacked	1.50/ 2.00
No. 2 Roofing	.70/ .80

COTTON LINTERS

Memphis Market
F.o.b. Oilmills

Week Ended Dec. 13	Per 100 lbs.
Grade 1 n.a.	
2	$9.75/$8.75
3 1 cut—felting	8.75/ 7.75
4	7.75/ 7.00
5	7.00/ 6.00
6	6.00/ 5.75
7	5.25/ 5.00

*Based on 73% cellulose.

Bagging
(Prices to Dealers, F.o.b. N. Y.)

	Per 100 lbs.
Foreign Gunny	$6.00/$6.75
Foreign Scrap Burlap	5.50/ 6.00
Heavy Wool Tares	6.50/ —
No. 1 Foreign Manila Rope	6.25/ 6.50
No. 1 Domestic Manila Rope	7.75/ 8.25
Domestic Sisal Strings	4.50/ 4.75

WASTE PAPER MARKET

Mill Prices, f.o.b. Trucks Shipping Point — Includes Brokerage

These quotations are a partial indication of the price range on volume tonnage in each market on the date specified, as gathered from major dealers. SPECIAL PACKINGS AND SPOT TONNAGE NOT INCLUDED. Prices nominal.

	New York	Boston	Chicago	Los Angeles
	Dec. 17	Dec. 17	Dec. 17	Dec. 17
No. 1 Mixed Paper	$6.00/ 9.00	7.00/ 9.00	6.00/ —	12.00/ —
No. 1 News	11.00/ 13.00	12.00/ 13.00	12.00/ —	14.00/ —
Overissue News (Lg. size)	14.00/ 17.00	12.00/ 14.00	17.00/ —	14.00/ —
Mill Wrappers	12.00/ 14.00	13.00/ 14.00	9.00/ —	14.00/ —
Old Corrugated Containers	15.00/ 17.00	15.00/ 17.00	20.00/ —	19.00/ —
Super Resorted Kraft Paper	35.00/ 40.00	35.00/ 40.00	35.00/ —	45.00/ —
New Double Kr. Ld. Corr. Cuts	25.00/ 30.00	25.00/ 30.00	28.00/ —	30.00/ —
(Semi-chem. medium)	30.00/ 40.00	35.00/ 40.00	30.00/ 40.00	35.00/ 40.00
New 100% Kraft Corr. Cuts	50.00/ 55.00	50.00/ 55.00	60.00/ —	40.00/ —
New Br. Kraft, Env. Cuts	75.00/ 85.00	75.00/ 85.00	60.00/ —	50.00/ —
New Br. Kr. Bag Waste Prntd.	55.00/ 60.00	60.00/ 65.00	55.00/ —	50.00/ —
New Br. Kr. Bag Waste Unprntd	60.00/ 65.00	70.00/ 75.00	70.00/ —	50.00/ —
No. 1 Groundwood Shvs.	30.00/ 35.00	25.00/ 35.00	22.00/ —	27.00/ 30.00
White Newsblanks	55.00/ 65.00	55.00/ 65.00	50.00/ —	55.00/ —
No. 1 Soft White Shvs.	55.00/ 65.00	70.00/ 75.00	65.00/ —	— / —
Super Soft White Shvs.	65.00/ 70.00	75.00/ 80.00	75.00/ —	— / —
Hd. White Shvs.	90.00/100.00	100.00/105.00	95.00/ —	90.00/ 95.00
Hd. White Env. Cuts	110.00/120.00	115.00/125.00	95.00/ —	100.00/110.00
Col. Tab. Cards	55.00/ 60.00	65.00/ 70.00	50.00/ —	35.00/ —
Manila Tab. Cards	75.00/ 85.00	80.00/ 85.00	70.00/ —	49.00/ —
No. 1 Col. Ledger	35.00/ 40.00	35.00/ 40.00	45.00/ —	30.00/ —
White Ledger	55.00/ 60.00	55.00/ 65.00	60.00/ —	43.00/ —
Mixed Book & Mag.†	20.00/ 21.00	21.00/ —	12.00/ —	— / —
No. 1 Rep'd. Hvy. Books‡	28.00/ 30.00	28.00/ 30.00	27.50/ —	— / —

† Includes Time & Life; no coarse groundwood. ‡ Not to exceed 10% of groundwood. § Deld.

PRICES OF MATERIALS

Aluminum sulphate:
cml bags, c.l. wks. .....cwt. $1.85 / —
iron-free, c.l. wks. .....cwt. 3.55 / —

Casein, acid prec.:
dom. sh. pt. c.l. (30 mesh) cwt. 32.00 / —
Arg. ex. dock, duty paid...cwt. 23.50 /24.50
New Zeal. do. .....cwt. 25.00 /26.00

Caustic soda:
c.l. wks. solid, 76% .....cwt. 4.30 / —
flak. & grd. drums, c.l. ...cwt. 4.70 / —
liquid 50% tanks.... 2.90 / —
liquid 73% tanks.... 3.00 / —

China Clay
dom., dry-grd., airfloat:
325 mesh, bgs,. c.l. Geo. ton 10.00 / —
300 mesh, bgs., c.l. Geo. ton 13.50 /14.50
imp., white, lump, c.l. ex. dock 20.00 /35.00
powdered bgs., c.l. ex. dock 50.00 / —

Chlorine:
single-unit tanks, works...cwt. 3.15 / —
multiple unit, 2-5 cars per yr. 5.25 / 4.05

Formaldehyde
37% (inh. 8% methanol) USP:
drums, c.l. dlvd. .....lb. .0675/ .0705
tank-cars dlvd. .....lb. .042 / .045

Lime:
hydrated, bulk, c.l.....tons 21.96 / —

Gum rosin:
K, M, N, drums, c.l. Savan, cwt. 8.20 / 8.27

Rosin size:
70%, gum & pale grds., tank
cars, south, sh. pt. ....cwt. 7.44 / 7.48

Saltcake:
dom. bulk, 100% anh. wks, ton 28.00 / —

Soda ash:
light, 58% ash bags, wks...cwt. 1.90 / —
bulk, c.l. wks. .....cwt. 1.60 / —

Sodium peroxide:
dms. c.l. E. of Miss. .....lb. .20 / —
l.c.l. (same basis) ..... .20½/ .21

Sodium silicate, 40° Be.:
tank-cars, wks. .....cwt. 1.10 / —
drums, c.l. wks. .....cwt. 1.45 / —
(47°) Be. WW.
tank-cars, wks. .....cwt. 1.75 / —
drums, c.l. wks. ... .cwt. 2.10 / —

Soybean, protein:
chem. isol., wks. c.l. bags...lb. .23 / —

Starches:
corn, multiwalls, c.l. prod. plant:
pearl .....cwt. 6.49 / 6.75
white, dextrins .....cwt. 8.08 / 8.20
chlorinated .....cwt. 8.25 / 8.35
potato, Idaho, c.l. wks.....cwt. 6.00 / —
East, fr. all. 50 cents cwt.
potato, Maine, f.o.b. wks. cwt. 6.25 / —

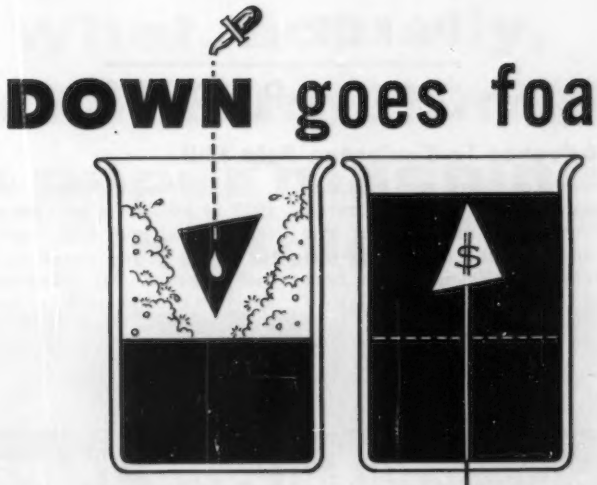
Sulphuric acid:
60° Be. cbys. c.l. wks.....cwt. 2.00 / —
l.c.l. wks. .....cwt. 2.45 / —
tank-cars, wks. .....ton 18.60 / —

Sulphur:
crude, c.l. mines, contract,
long ton 26.50 / —
f.o.b. vessels Gulf dock ...ton 28.00 / —

Sulphur dioxide:
liquid, coml. cyl., wks. .....lb. .10 / 12
multi-unit cars, wks. .....lb. .0535/ —

Talc:
c.l. wks., N.Y. .....ton 28.00 / —
l.c.l. wks., N.Y. ..... ton 31.00 /36.00

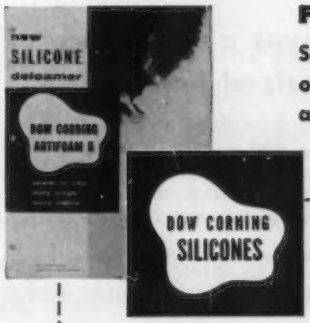
Titanium dioxide:
anstase, c.l. dlvd. E. bags..lb. .24½/ —
l.c.l. dlvd. .....lb. .25½/ —
rutile, c.l. dlvd. .....lb. .26½/ —
l.c.l. dlvd. .....lb. .27½/ —



with Dow Corning SILICONE DEFOAMERS

If foam is stealing your productive capacity or creating a costly maintenance headache, it's time you changed to a Dow Corning silicone defoamer. Today, more pulp and paper mills than ever before rely on these versatile silicone foam killers to provide dependable, low cost protection against foam.

One kraft mill, for example, minimizes foam in first-stage washers by continuously feeding minute quantities of a Dow Corning silicone defoamer to the weak liquor stream. Here, a silicone concentration of less than 1 part per million keeps foam under control. In other mills, paper chemists who have tested new Antifoam B Emulsion report it is remarkably effective and has much less tendency to spot or stain than other silicone emulsions.



FREE test!

Send today for a generous free sample of Antifoam B and complete information about Dow Corning silicone defoamers.

Dow Corning Corporation, Dept. 2912A
Midland, Michigan

Gentlemen:
Please send me free sample of Antifoam B Emulsion and brochure giving complete data.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

PAPER PEOPLE

Two Advance in Covington Pulp Mill

William J. Verross has been promoted to assistant pulp mill superintendent at the Covington, Va. mill of West Virginia Pulp & Paper Co. At the same time, Wendell B. Hammond has been advanced to the post of supervisor of digestors and semi-chemical units from his former post of pulp mill technical assistant.

Mr. Verross first joined West Va. in 1947 as assistant superintendent at the experimental pulp mill. Since September, 1955, he has served as pulp mill staff engineer. Mr. Hammond, who joined the paper mill in June, 1955, was promoted from project leader, technical service to pulp mill technical assistant in September, 1956.

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We will welcome an opportunity to answer any question you may have on the use of Bitusize. *Contact our office nearest you for complete information.*

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Inglewood, Calif. · Oakland 1, Calif. · Tucson, Ariz.
Portland 7, Ore.
Main Office: 200 Bush St., San Francisco 20, California

L. A. Moss Moves to Riegel From Whiting-Plover

L. A. Moss has been named as administrative assistant to the vice president and general manager of the New Jersey operations of the Riegel Paper Corp.

Mr. Moss, mill manager at the Whiting-Plover Paper Co. in Wisconsin from 1952 until he resigned on Oct. 22 this year, was with the Whiting-Plover firm since 1938. W. E. Carlson is now acting manager at the Whiting mill.

F. K. Weyerhaeuser Elected Timber Company President

F. W. Weyerhaeuser of St. Paul, Minn., was elected president of the Weyerhaeuser Timber Co. at a special meeting of the board of directors in Tacoma last week. He succeeds his brother, J. P. Weyerhaeuser, who died December 7. (See this week's Obituaries column.) The new president had been chairman of the board. He is also president of the Weyerhaeuser Sales Co.

Spearin to Supervise D. M. Bare Production

The D. M. Bare Paper Co. has appointed Walter E. Spearin production superintendent. Mr. Spearin graduated with a B. S. Degree in Chemical Engineering from the University of Maine in 1943. He also received his M. S. Degree from The Institute of Paper Chemistry of Appleton, Wis. in 1948. His entire career has been associated with the pulp and paper industry. Mr. Spearin was formerly associated with D. M. Bare's parent company, Combined Locks Paper Co. at Combined Locks, Wis. as technical director from 1949 to 2954. Mr. Spearin assumed his new duties December 1, 1956.

Benny & Bedson in New Diamond Match Jobs

Howard C. Bedson is the new manager of Diamond Match Co.'s Palmer, Mass. molded pulp plant. He succeeds John C. Benny who is being transferred to California to become production manager of Diamond's new integrated forest products plant at Red Bluff.

Robert K. Bedson, formerly general foreman of production at Palmer, has been promoted to production superintendent. Burnham R. Gibbs, formerly master mechanic, has been named maintenance superintendent.

Howard Bedson was appointed assistant superintendent at Palmer in February 1944 and became plant superintendent in 1946.

Centola to Be Prod. Mgr. At New H.&D. Meriden Mill

Ralph Q. Centola, formerly chief industrial engineer for Hinde & Dauch Paper Co., Sandusky, Ohio has been appointed plant production manager of the new box plant in Meriden, Conn., scheduled to start after the first of the year.

He will assume his new duties on January 1, 1957, and will observe production equipment and methods at the Sandusky and Richmond plants until early spring.

Harry D. Greene, Jr., will replace Mr. Centola as chief industrial engineer. He joined H&D in 1949 as plant industrial engineer at Sandusky and has been Mr. Centola's assistant for the past year and a half. In his new post, Mr. Greene will be responsible for the establishment of a company-wide system of standards and for the training and supervising of H & D's industrial engineering staff.

Eggerss Retires from Con. Can Drum Division

Carl E. Eggerss, vice president of the Fibre Drum Division of Continental Can Co., is retiring on December 31 after spending his entire business career in various phases of the paper container field.

Peter P. Wojtul, currently Continental's president in charge of sales, will become Fibre Drum Division head on January 1, 1957.

Fort Wayne Names New Chicago Sales Mgr.

Thomas E. Kigin is the new sales manager for the Chicago division of Fort Wayne Corrugated Paper Co.

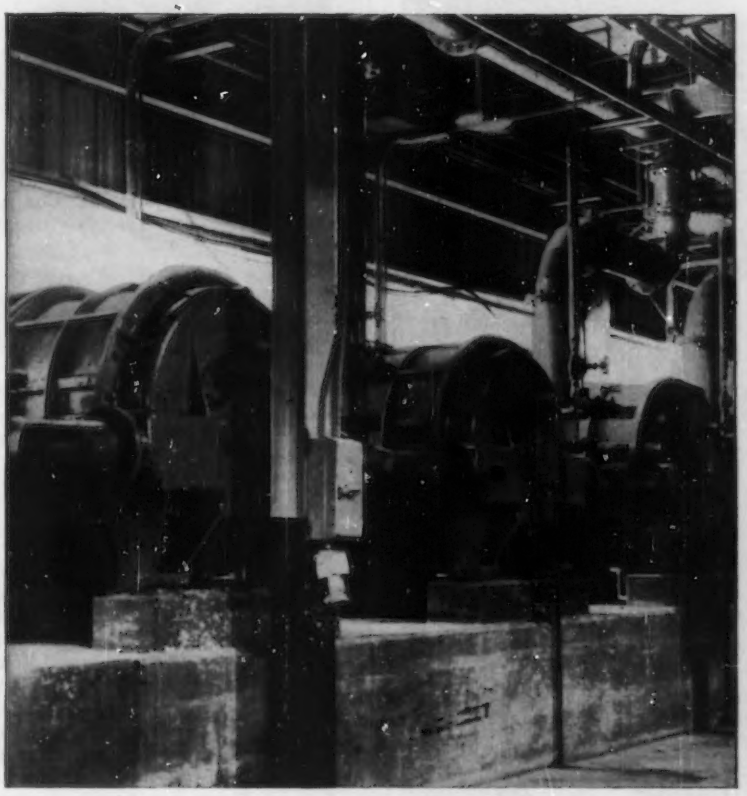
Mr. Kigin was assistant sales manager of the division at the time of his appointment. Prior to going to Chicago last January, he was assistant sales manager of Fort Wayne Corrugated's Pittsburgh division.

O.-M. Forest Div. Appoints Wood Procurement Men

Ralph W. Law has been appointed assistant manager of pulpwood procurement for the Forest Products Div. of Olin Mathieson Chemical Co. He will operate from the Division Office in West Monroe, La.

In two other appointments, P. P. Lynch was named district pulpwood procurement manager for Mississippi, with temporary headquarters at the Walthall Hotel in Jackson, Miss., and I. H. Butler was appointed district pulpwood procurement manager for southern Arkansas and North-Central Louisiana with headquarters at West Monroe.

What, actually, do Vacuum Pumps on paper machines handle?



Paper mill engineers know that it is actually a mixture of air and water vapor, but the custom of rating vacuum pumps in terms of air capacity alone causes this important fact to be frequently overlooked.

The presence of this water vapor causes a considerable reduction of the effective air handling capacity of any vacuum pump except the Nash. In the Nash Vacuum Pump the bulk of this water vapor is effectively condensed, due to the Nash operating principle. The air handling capacity of the Nash is therefore not reduced.

That is one of the reasons why Nash Vacuum Pumps are standard in over a thousand leading Paper Mills.

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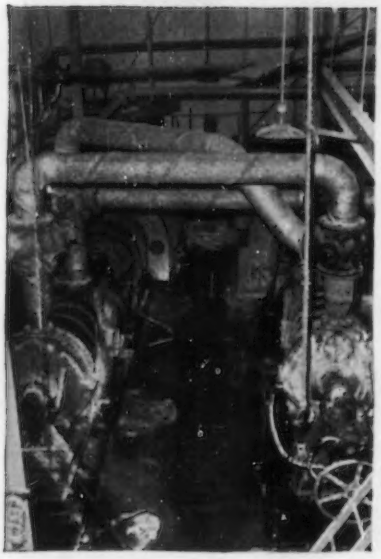

Whatever your piping layout requires, you can depend on Naylor pipe service to fit into your construction or maintenance schedule.

It's a service designed to give you more for your money whether you need stock lengths, standard fittings or engineered layouts. The accuracy of Naylor fabrication assures perfect fit on simple or complex requirements. You get exactly what you need, when you need it.

Naylor pipe comes in sizes from 4 to 30 inches in diameter with all types of fittings and connections. Both pipe and fittings are furnished in steel, alloys and stainless steel.

Write for Bulletins No. 507 and No. 525 or send specifications for quotation.

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John W. Cox

Federal Paper Board Elects Cox Top Vice-Pres.

The election of John W. Cox as executive vice president of the Federal Paper Board Co. has just been reported by John R. Kennedy, president of the company. Mr. Cox was formerly a vice president of the Diamond Match Co. and, before that, president of the General Package Corp.

He is president and a director of the Yankee Stadium Corporation and a director of Federal Paper Board and Diamond Match.

Gardner Board Makes Four Appointments

Gardner Board and Carton Co. of Lockland and Middletown, Ohio, has promoted Charles S. Sweitzer to the position of assistant director, board mill development. He is graduated from the New York State College of Forestry with a B. S. degree in pulp and paper manufacturing. He has also completed a special one-year course at the Institute of Paper Chemistry.

Richard Boggs has been promoted to the position of technical supervisor, Lockland carton plant. He joined Gardner as a management trainee in 1954. He was promoted to chemical engineer in 1955.

Thomas G. Zentner is now assistant technical director, carton plant development. Having joined Gardner in 1952 as a mill technician, Mr. Zentner was promoted to technical supervisor in 1953. He took his graduate work at the Institute of Paper Chemistry where he received his Master's and Doctor's degrees in the field of pulp and paper.

Glenn Battaglia moves up to the position of technical supervisor, Lockland board mill. Mr. Battaglia joined Gardner in 1955 as a chemical engineer. He was graduated from the M. I. T. with a B. S. degree in chemical engineering. He received his Master's degree in business administration from the Harvard Graduate School of Business Administration.

Emerson Lewis

Name Supt. to New Post In New Kraft Pulp Mill

Emerson Lewis has been appointed superintendent of Wood Utilization in Eastern Corp.'s new $10,500,000 Kraft Pulp Mill now under construction at Lincoln, Maine.

Mr. Lewis joined Eastern in 1948 as a member of the trainee program for the development of executives for important posts in management. After extensive technical research studies of soft and hardwood species, followed by practical application in their conversion to sulphite pulp, Mr. Lewis was appointed assistant superintendent of Eastern's Lincoln sulphite pulp mill. He held this position until January 1954, when he was promoted to pulp mill superintendent. He will continue in his present capacity during the construction of the modern kraft pulp mill.

Mr. Lewis is taking an active part in the design and construction of the new woodyard and woodroom with much study being directed toward process improvements in the handling and treatment of the heavy hardwoods. This will place Eastern in the best possible position to make efficient use of wood from various sources and species not now considered practical.

Three in New Jobs With Powell River Co.

Dr. Hermann Crotogino has joined the research department of the Powell River Co., Powell River, B. C. He attended the Universities of Graz in Austria and Breslau in Germany, where he obtained his doctorate in physical chemistry. He has recently been with the Alaska Pine Co. at Port Alice, B.C.

Leonard Murphy, who joined Powell River engineering department in 1951 and was transferred to the industrial engineering department two years ago, has been appointed project engineer for No. 16 boilers.

Evan Pirie has been promoted to finishing room supervisor following the recent retirement of David McBain.

NEWS OF SUPPLIERS

Rust Engineering's New Birmingham Home

This aluminum, glass, and enamel fronted building in Birmingham, Ala. now houses all of the Rust Engineering Co. southern operations. These new quarters are located at 2316 Fourth Ave., N. district of Birmingham.

R. J. DeLargey

N. C. Elphick

R. L. Knox

H. R. Brown

Westvaco Chlor-Alkali Div. of Food Machinery and Chemical Corp. reports that Robert J. DeLargey, resident manager of its plant at South Charleston, W. Va., has been promoted to the post of director of engineering for FMC's chemical divisions. The appointment takes effect on January 1, 1957. Mr. DeLargey will be responsible for major plant design and construction, process development, and industrial engineering activities for all the chemical divisions of FMC including the Westvaco Chlor-Alkali Div.

Neil C. Elphick, general superintendent at South Charleston, will be the new resident manager at the plant succeeding Mr. DeLargey. Mr. Elphick came to South Charleston early in 1955 after serving on the engineering staff of the FMC chemical division's administrative offices in New York City.

Frank G. Hough Co. has appointed Robert L. Knox and Herman R. Brown as assistant sales managers for the compayn's line of Payloader equipment

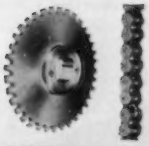
Mr. Knox will take charge of distributor sales and the contacts with field personnel. Mr. Brown will assume direction of manufacturers sales including export and government.

J. O. Ross Engineering Corp. gave its 11th annual dinner to members of its 25-Year Club and their wives on November 26th, at the New York Athletic Club in New York. Ross offices in New York, New Brunswick, Boston, Chicago, Detroit and Montreal were represented in the total of 35 members who have been with the company for 25 years or more.

DODGE PRODUCTS You Should Know-

TAPER-LOCK ALL-STEEL CONVEYOR PULLEYS

TAPER-LOCK SHEAVES



TAPER-LOCK SPROCKETS AND DODGE ROLLER CHAIN

Dodge Bulletins you should have-

☒ Taper-Lock All Steel Conveyor Pulleys. Construction details, sizes, dimensions. Bulletin D56.

☒ Taper-Lock Sprockets, Taper-Lock Chain Couplings and Dodge Roller Chain. Technical information and selection data. Bulletin A-644.

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always in the market
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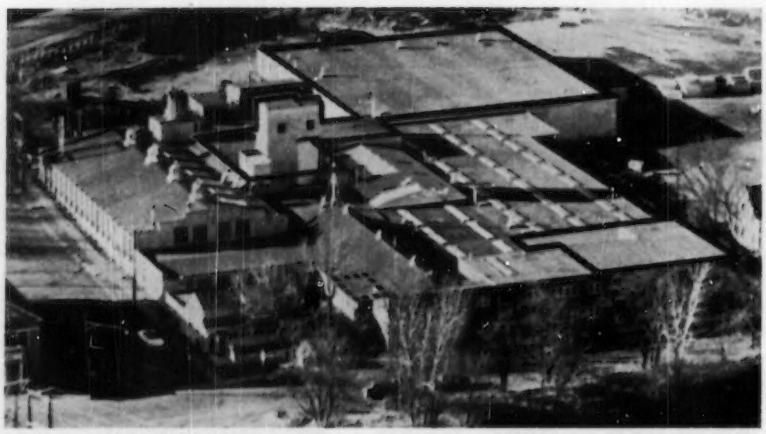
company graders and packers of waste paper



New Units, New Name—DeZurik Shower Co., coinciding with the observance in 1957 of its twenty-fifth business year, is placing into operation several substantial new additions to its Sartell, Minn. plant which culminate a steady record of expansion during the firm's quarter-century of operation. At the same time, the company announces a change in its corporate name to DeZurik Corporation . . . At its inception in 1932, the DeZurik company's principal product was a paper-mill shower, and the original company name was based on that product. However, the shower's success led to the development of other products which now represent the major output of the DeZurik plant. Under these current circumstances, the term "shower" in the company's name is no longer indicative of the firm's activities, and the name is therefore being changed to the broader designation of DeZurik Corporation. Expanded plant areas are outlined above.

F. E. Lawatsch

J. A. Forrest

E. S. Skinner

G. D. Williams

De Laval Separator Co. has named Frank E. Lawatsch manager of the Marine and Oil Processing Division of the company. Mr. Lawatsch joined De Laval in 1946 as a research and development engineer. In 1951 he was transferred to the company's sales department as sales engineering coordinator, concentrating on special industrial applications.

Michigan Alkali Div., Wyandotte Chemicals Corp. has appointed James A. Forrest senior salesman. He will operate out of the company's Eastern district office in New York City and his territory will be upstate New York.

Dorr-Oliver Inc. has opened a new office in Baltimore at 2125 Maryland Avenue. The office will serve engineers and industry in the mid-Atlantic states of Virginia, West Virginia, Maryland and Delaware.

Sales Engineers Kelsey C. Lindstrom of Eastern Industrial Division and Benjamin F. Rockecharlie of Eastern Sanitary Division have been transferred to the new office.

Beloit Iron Works has appointed E. Sterling Skinner as chief engineer.

Sterling Skinner came to Beloit Iron Works immediately after his graduation from the University of Wisconsin in 1933. He has served as purchasing engineer, and assistant chief engineer. During World War II Sterling Skinner was closely associated with Beloit Iron Works war production program for which the company received the coveted Army-Navy "E".

Sterling Skinner's appointment as Chief Engineer fills the vacancy created by the recent promotion of E. D. Beachler to vice president, engineering. Mr. Sterling is an active member of TAPPI, and ASME.

Bailey Meter Co. has appointed George D. Williams manager of the company's Boston district office. He succeeds P. T. Reuter who died October 5. Mr. Williams, who joined Bailey Meter in 1946, was graduated from Worcester Polytechnic Institute with a degree in mechanical engineering.

Figures of the Week

PAPER PRODUCTION RATIO REPORT—American Paper & Pulp Ass'n. Figures

(Production as percent of normal capacity)

COMPARATIVE WEEKLY SUMMARIES

	Nov. 10	Nov. 17	Nov. 24	Dec. 1	Dec. 8
1956	100.1	97.9	93.8	97.8 r	98.3
	Nov. 12	Nov. 19	Nov. 26	Dec. 3	Dec. 10
1955	101.8	100.3	99.0	101.9	103.1

r Revised.

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Year Avg.
1955	93.6	96.6	97.9	98.0	99.3	97.4	85.5	96.2	93.8	101.2	100.6	94.8	94.9
1956	99.6	102.6	102.9	102.5	101.8	99.9	85.6	96.7	94.3	100.0‡	98.2‡		

‡ Preliminary.

COMPARATIVE YEARLY SUMMARIES

	1949	1950	1951	1952	1953	1954	1955	1956
Year to Date	83.8	96.5	99.6	90.6	93.7	92.2	95.7	98.5
Year Average	83.7	95.8	98.0	88.6	92.3	91.6	94.9	

All of the above data is based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

Note: In the above tables all the ratios shown are on the basis of a normal 6 and 7 day Capacity.

PAPERBOARD OPERATING RATIOS†

COMPARATIVE WEEKLY SUMMARIES

	Nov. 10	Nov. 17	Nov. 24	Dec. 1	Dec. 8
1956	95	94	89	86	95
	Nov. 12	Nov. 19	Nov. 26	Dec. 3	Dec. 10
1955	102	104	95	98	102

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1955	92	95	96	94	97	97	84	99	97	102	101	92	96
1956	100	100	99	100	99	98	77	95	89	96	92		

† *Percents of operation based on "Inch-Hours" reported on a 6-day basis to the National Paperboard Association.*

SUMMARY OF PAPERBOARD STATISTICS—National Paperboard Ass'n. Figures

ITEM	THIS WEEK ENDING Dec. 8, 1956	LAST WEEK ENDING Dec. 1, 1956	CUMULATIVE TO DATE Jan. 1, 1956 to Dec. 8, 1956
% Activity	95%	86%	95%
	Tons	*Tons*	*Tons*
Total Production	275,418	252,372	13,453,040
Liner	97,642	86,388	4,662,406
Corrugating Material	44,664	42,192	2,110,801
Chip & Filler Board	5,254	6,144	294,921
Total Containerboard	147,560	134,724	7,068,128
Folding	51,232	44,693	2,431,251
Set-Up	11,759	11,153	624,032
Special Food Board	22,549	24,102	1,128,943
Other	42,318	37,700	2,200,687
Total Boxboard	127,858	117,648	6,384,912
Total Orders	*Tons*	*Tons*	
Received	327,486	287,435	
Unfilled End of Week	451,288	407,812	

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Norbide Products

NORTON COMPANY

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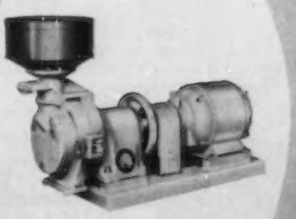
Behr-Manning Division, Troy, N. Y.

Laboratory mill



Here's a disc mill for your laboratory . . . to do miscellaneous grinding jobs of either wet or dry material; to refine cooked chips and knotter or screen rejects; to fluff dry pulp samples.

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PAPER MILL DESIGN PROCESS ENGINEERING POWER PLANTS

STRUCTURAL AND ARCHITECTURAL DESIGN

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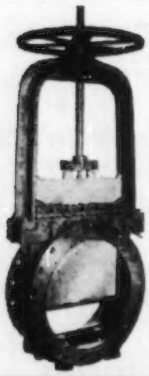

RECORD PAPER & PULP STOCK VALVES "BONNETLESS" SELF CLEARING---"RESIDUE POCKETLESS TYPE"

METALS — I.B.B.M. all iron, bronze or stainless steels, body parts plain or rubber lined.

The photo of 24" Fig. 241 I. B. B. M. valve while illustrating the gate bottom wedge system for forced gate seating and "GUILLOTINE" edge for shearing fibre at seat also shows the packing box and yoke as separate units. Both adjustable.

- **The "FAST THREADED" screw stem and ball bearing speeds valve operation.**
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- **The yoke mountings are such that yokes for various methods of gate operation are interchangeable.**
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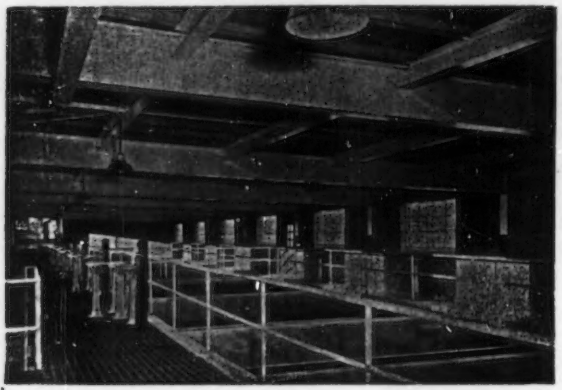

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Bristols . . . Index, post card.

Converting Papers . . . Label, tablet, envelope, lining, file folder, tag, tabulating card, coating raw stock.

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Kraft Papers . . . Bag, multiwall sack, envelope, asphalting, impregnating, waxing.

Containerboard . . . Linerboard and corrugating medium.

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The Trademark of Felts of Superior Quality for Every Grade of Pulp and Paper

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CORES CAPS

Straight wound paper cores made in sizes from 2" to 10" inside diameter with any thickness wall required.

Long draw protected slot caps of heavy gauge steel in all standard sizes.

Heavy duty caps with reenforced square hole. This patented feature of reenforcement gives added strength and durability.

Samples of caps or cores will be gladly submitted

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STOCKS OF DYESTUFFS CARRIED IN ALL LARGE PAPER-MAKING AREAS

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DIVISION OF GEIGY CHEMICAL CORPORATION
SAW MILL RIVER ROAD, ARDSLEY, N. Y.

Geigy — *dyestuff makers since 1859*

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IN GREAT BRITAIN: The Geigy Co., Ltd., Manchester

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One-piece assembly.
For old or new Jordans.
Extremely strong and rigid.
No keys or wedges.
Easy to s[illegible]nd in.
No sharp ends to form strings or lumps.
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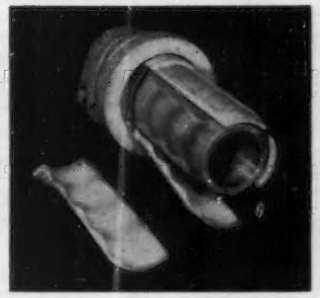
Builders of Quality Stock Preparation Machinery

Dilts LIGHTWEIGHT EXPANDING CHUCK

Cuts Roll Shaft-up Time by 50%



REDUCES CORE DAMAGE

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Easy to Handle • Simple to Operate • Prevents Damage

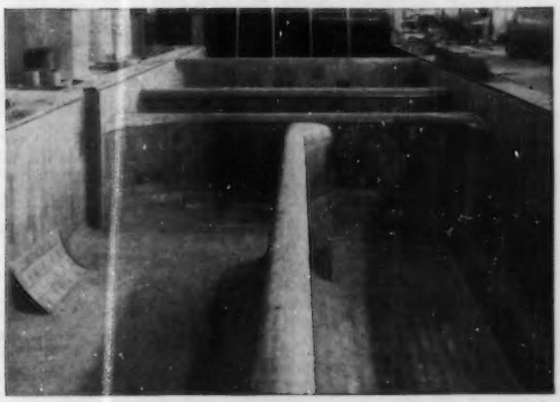
. . . chuck holds roll concentrically—grips core on inside and transmits full braking torque without slippage

Standard Sizes—3"—3½" and 4" core I.D. to fit 1⅛" thru 2⅜₁₆" round shafts and 1¼" square shafts. (High Tensile Aluminum)

5"—6" core I.D. to fit 2⅜₁₆" thru 3¹⁵⁄₁₆" round shafts. (Malleable Iron)

Write for specification sheet 102A or place order direct.

THE BLACK-CLAWSON COMPANY
DILTS DIVISION • FULTON, N. Y.



***Kalamazoo* GLAZED TILE**
TANKS, CHESTS, LININGS
. . . any shape, any size

Engineered and erected by experts with over 25 years' practical experience. Highest quality glazed tile. Corrosion resistant, easy to clean, durable. For new construction or for remodeling existing facilities.

TILE TANK DIVISION
***Kalamazoo* TANK and SILO CO.**
525 HARRISON ST., KALAMAZOO, MICHIGAN

PAPER TRADE JOURNAL / CLEARING HOUSE

Help Wanted

CONFIDENTIAL EMPLOYMENT SERVICE

For paper and pulp mills and paper converting plants. Our service is rendered without charge to employers seeking executives. No charge to applicant until position is accepted. We invite your inquiries.

CHARLES P. RAYMOND SERVICE, Inc.
294 Washington St. Boston 8, Mass.
Phone: Liberty 2-6547 D-24

MILL SALESMAN EXPERIENCED IN SELLING SPECIALTY PAPERS TO CONVERTER TRADE. SHOULD HAVE SOME MANUFACTURING KNOWLEDGE. PLEASE GIVE FULL DETAILS IN FIRST LETTER. REPLIES HELD IN CONFIDENCE. BOX 56-404 CARE PAPER TRADE JOURNAL. D-31

TOUR BOSS WANTED

High grade folding boxboard mill located in southern Michigan is interested in hiring an aggressive Tour Boss. We will consider a good cylinder machine tender who feels that he is ready to assume position and responsibility of a Tour Boss. Write to General Superintendent, Box No. 56-403 care Paper Trade Journal. J-14

WANTED

Chemist or Chemical Engineer with 1-3 years experience in insulation board, pulp and paper, or related industry for assistance to Quality Control Supervisor in large insulation board plant located in South on Gulf Coast. Will consider recent graduate without experience if potential is promising. Write P.O. Box 1528, Mobile, Ala. for application and personal interview appointment. D-31

WANTED

Excellent opportunity for young man (30-40) with experience in cylinder machine operation to train for position of Tour Boss in Midwest Boxboard Mill.

All replies confidential. Write Box 56-369 c/o Paper Trade Journal.

T.F.

MECHANICAL ENGINEER

Superintendent of converting and finishing operations in Midwest specialty paper mill. The man we require is now connected with a modern converting or finishing department. This man must be capable of modernizing methods and equipment to give us an efficient and up to date converting plant for our expansion program. Please submit complete resume of experience, education, personal history and salary thinking with your reply. Answer to Box 56-364, Paper Trade Journal. D-31

BEATER ROOM FOREMAN

To take complete charge of beater room in Eastern kraft specialty mill. Must be capable of matching colors on machine. Reply stating age, experience, availability and salary required to Box 56-387 care Paper Trade Journal. D-24

Help Wanted

PAPER MEN
$5,000 to $50,000
SALES—PRODUCTION—TECHNICAL

Top mills, converters, and jobbers from Coast to Coast badly need qualified men at every level. Choice spots open in pulp, board, coarse, fine, folding, corrugated, multi-wall bags, transparent packaging and paper specialties of all kinds.

I am a paper man myself. If your record of performance entitles you to increased responsibility and greater potential, I can and will help you to attain it. You may contact us in absolute confidence.

GEO. M. SUNDAY & ASSO.
Personnel Consultants to the Paper Industry
6 E. Monroe, Chicago AN 3-1970 TF

SUPERINTENDENT

Superintendent for paper board mill with technical as well as practical experience on cylinder machine producing chipboard. Capable of assuming full charge of mill. Salary commensurate with experience and ability to produce. Address Box 56-394 care Paper Trade Journal. J-7

HAMMERMILL PAPER COMPANY

A rapidly expanding and progressive Paper Mill has openings for a Structural Engineer and Layout Draftsmen. Ideal location for you and your family. All inquiries held in strictest confidence. Contact:

Industrial Relations Department
Hammermill Paper Company
Erie, Pennsylvania J-14

CYLINDER MILL producing 50 tons daily. Patent coated, quality folding box, food and specialty boards has unusual opportunity for proven salesman. Complete resume desired. Address Box 56-398 care Paper Trade Journal. J-7

Situations Wanted

EXECUTIVE-WORKS MANAGER — Superior record in production organization, labor relations and development of new products in boards, papers and conversion. Seeking organization offering challenging opportunity. Diversified lines. Employed. Address Box 56-252 care Paper Trade Journal. D-31

DE-INKING-BLEACHING. Highly successful experience, superior record, trouble-shooter; looking for challenging opportunity. Confidential. Address Box 56-399 care Paper Trade Journal. D-24

YOUNG MAN—Married with family. Age 29. Has board and corrugating mill experience. Desires sales position with paper mill in East or South. Address Box 56-402 care Paper Trade Journal. J-14

For Sale

Write for "USED MACHINERY LISTING" of PAPER CONVERTING and PAPER BOX MACHINES for sale. Immediate delivery. GREGGORY, INC., 203 N. Wabash, Chicago, Ill. TF

FOR SALE

PRINTING PRESSES

1—42" 4-color Kidder late type Standard Aniliner
1—42"—4 color Cottrell-Heinrich Flexo, press on 6-color frame, suitable for cellophane
1—48" 6-color Henrich-Cottrell Press. 4-Flexo—2 Rotogravure.
1—4 Color Meisel 28" x 28" Rotary, roll to sheets with bronzing unit
1—36" 2-color Manhassett with Slitting Attachment.
1—30" 4-color Paper Converting Machine Oil Ink

POWER PAPER CUTTERS

13—Seybolds—64" Precision, 56" & 84" 12Z, 56" 64", 65" 10Z, 50" 6Z, 64" C.F., 74" & 84" Daytons, 44" & 74" 20th Century, 34" Holyoke.
4—Oswegos: 34", 44", 57" & 68".
2—Sheridans—36" & 40".

CAMACHINES

1—82" Type 10.
1—72" Type 10-11 rebuilt
1—72" Type 10-10A 36" Rewind
1—62" Type 40 I.A.F.
2—50" Type 40-48 for bandaging etc.
1—52" Type 10-6
1—42" and 1—62" Type 6.
1—42" Type 9-5-A Roller Bearing
1—42" Type 10-5A, 30" rewind
1—42" & 1—52" Type 24-2A
1—42" Type 4Z-7A
1—42" Type 24-7 for cellophane.

OTHER SLITTERS

1—82" Langston Type B Shear Cut, rewinds 50" diam. rolls.
1—84" Waldron Double-Drum, Shear-Cut, 50" Max. Rewind.
1—40" Langston Type "B" 50" rewind
1—60" Type A Langston 36" rewind.
3—40" Model B Fales Shear-Cut Slitters.
2—24", 1—30" and 2—40" Kidder Model SL Shear Cut
1—30" Johnstone Special #15 Score-cut.

MISCELLANEOUS MACHINES

1—12" x 12" New Era Press & Collator
1—Brand new Hayssen cellophane & bond wrapping machine.
1—Knowlton Tube Winder with re-Cutter.
1—Keystone core cutter.
2—Waldron Gumming machines, 40" and 72" wide.
2—Beck Sheeters: 1—36" CCSH, 1—45" CSH
1—Dietz Twin Type Towel Interfolder
1—Weber, Model 2 CN Cellophane Bag Machine
1—Potdevin Model 372 Cellophane Bag Machine—makes both satchel bottom and flat and square bags.
1—Beasley, French, Bag Machine, with 4-color Flexo tail printer.
1—52" Waxer and Laminator.
1—48" & 1—72" Mayer Equalizer Type Waxing & Laminating Machine
1—75" Potdevin Type Squeeze Roll Waxing Machine
4—Die Presses 1—50" x 22", Sheridan, 1—38" x 24" Type UA—2—17" x 42" Seybolds.
4—Waldron Embossers. 1—32", 1—52" and 1—46" heavy duty. Also 1—48" Hudson Sharp Embosser-tinter.
1—Paper Converting Machine Co.'s 20"—1/6 fold facial napkin folder
1—Single & 1 Double fold Paper Converting Interfold toilet machines.
2—Paper Converting Machine Co.'s ¼ Fold Napkin Machines. 1-2 web & 2-3 web.
2—2 web P.C. Machine Co.'s Napkin Folders. Dispenser Type.
2—3 web ¼ fold Paper Converting Machine Co.'s Napkin Folded Jr. Model Dispenser Type.
1—86" Duplex Dillon Sheeter with Brannan folder.
1—30" Peter's Cellophane sheeter
2—81" Dietz Standard Converters.
1—Model "A" Junior Lawtomatic Toilet Roll Wrapping Machines
7—Hamblet Sheeters, 30", 40", 56", 62", 66" & 100".
1—90" Moore & White Single Rotary Sheeter with backstands and layboy.
1—60 Black-Clawson 3 ply board or paper laminator

GIBBS-BROWER CO., INC.
10 Depot Plaza, White Plains, New York
Telephone—Rockwell 1-1130
Canadian Branch—P.O. Box 10
Willow Cove, Ontario D-24

FOR SALE

BARKING DRUM
Write us regarding your requirements.

BEATERS
2—1500 lb. rag beaters, Valley Iron, bandless rolls, 54″ x 48″, cast iron tubs, with motors.
Write us regarding your requirements.

BREAKER STACK
Write us regarding your requirements

CALENDER STACKS
1—3 roll 30″ face friction Calender Stack (Holyoke), 2 iron rolls, 1 cotton roll and 1 spare cotton roll.
1—3 roll 84″ calender stack.
1—4 roll 72″ Calender Stack. (Extra heavy duty).
1—5 roll—82″ face.
1—5 Roll 86″ (Heavy Duty).
1—5 Roll 90″.

CHIPPERS
1—96″ Murray 4 knife Chipper—anti-friction bearings.
24—Chipper Knives 15⅞ x 8¼, 2 slot.

CLASSIFINER
1—Dilts Classifiner, practically new with motor

CORE MACHINES
Write us regarding your requirements

CRUSHER & HAMMERMILL
1—Murray Chip Crusher.

CYLINDER MOLDS
2—30″ diameter x 72″ face.
1—30″ diameter x 92″ face.
2—36″ diameter x 54″ face.
1—36″ diameter x 84″ face.
2—36″ diameter x 86″ face, with vats.
2—36″ diameter x 110″ face.
3—36″ diameter x 90″ face, 18″ diameter couch rolls.

DIGESTERS
2—14′ Globe Rotary Digesters.

DRIVES
1—Sandy Hill right angle 50 H.P. (4.75 to 1)
1—Farrel Birmingham enclosed drives, 200 H. P. anti-friction bearings, 5.45 to 1, new equipment.
1—Jones 21 H. P., ratio 10 to 1 (enclosed angle drive)
1—#4 Reeves Drive.
1—#4 Reeves Drive totally enclosed Class E with 25 HP splash proof motor.
2—Waterbury Hydraulic Variable speed line shaft drives (from 40 to 100 h.p.).
3—Rice Barton enclosed drives, double reduction (14 to 1 one end, 4 to 1 other end).
1—Westinghouse enclosed drive—175 h. p.
2—Westinghouse enclosed drives—75 h. p.

DRYERS
4—48″ diameter x 52″ face, frames, gears, bearings and 1 baby dryer 28 x 52.
5—24″ diameter x 54″ face, with bearings.
5—28″ diameter x 80″ face with anti-friction bearing.
4—36″ diameter x 115″ face, with gears & bearings.
1—36″ diameter x 44″ face.
1—36″ diameter x 66″ face.
1—36″ diameter x 67″ face.
5—36″ diameter x 76″ face.
2—Dryers 36″ diameter x 84″ face, with bearings gears.
7—36″ diameter x 80″ face.

DYNOFINER
"Rice Barton," details on request.

EMBOSSING CALENDERS
1—43″ 3-Roll Embossing Calender.
1—45″ Meadows 2 roll embosser.
3—62″ 2 Roll embossers.
Write us regarding your requirements.

EXTRACTOR ROLLS
1—Extractor roll, 26″ diameter x 104″ face, with rubber couch roll.
1—Rice Barton & Fales Extractor Roll, 26″ diameter x 104″ face, with rubber couch roll

FELT CONDITIONER
Write us regarding your requirements.

FELT ROLLS
50—Brass Felt Rolls with Brass Journals, 72″ face x 5″ dia.

FILTER
1—Oliver Filter, cylinder mold 64″ diameter x 120″ face, brand new all steel vat.

FLAT SCREENS
1—14 plate Packer, roller shoes.

GEARS
Write us regarding your requirements.

GRINDERS
2—3 pocket Grinders.

HEAD BOX AND INLET
1—Valley Iron Head Box and Inlet, 235″, new and complete.

HOG
1—Mitts & Merrill type 15-CSG.

HYDRAULIC PRESS
1—750 ton hydraulic pulp press.

JORDANS
1—Noble & Wood Mammoth.
Write us regarding your requirements.

LABORATORY EQUIPMENT
1—Ball Mill.
1—Electric Oven (Williams Standard Pulp Testing Apparatus).
1—8″ Potdevin Label Paster.
1—#0 Claflin Refiner.
Write us regarding your requirements.

LAMINATING MACHINES
1—72″ Hudson-Sharp laminating machine, reverse coater.
1—72″ Beloit Laminator, complete with drive.
2—26″ Polyethylene laminators.
2—84″ Asphalt laminators.

MOTORS
1—50 H.P. Upright motors, air cooled 3/60/440, 1150 R.P.M. (Ball Bearing).
2—100 h.p. G. E. Upright—1180 r.p.m.
1—300 h.p. Slip Ring Motor—500 r.p.m.—Rebuilt.
Write us regarding your requirements.

PRESS ROLLS
2—Chilled Iron, chrome plated, 9″ x 72″.
2—Chilled Iron, chrome plated, 14″ x 72″.
1—Chilled iron, chrome plated, 12″ x 100″
1—Chilled iron, chrome plated, 10″ x 74″
1—Rubber covered 26″ dia. x 244″ face.
8—Sets (1 rubber, 1 chrome steel) 74″ face x 15″ dia. Complete with bearings.

PULLEYS
Various cone and assorted pulleys.

PULPERS
Write us regarding your requirements.

PUMPS
1—Shartle Bros. high density pump, 2000 g.p.m., 62 ft. head.
2—Five stage Centrifugal Boiler Feed Pumps, 160 g.p.m., 1025 ft. head.
1—Ingersoll Rand Fan Pump, 10,000 g.p.m. —25 ft. head, anti friction bearings—like new.
Various sizes of Centrifugal and Plunger Pumps. Write us regarding your particular requirements.

RAG CUTTERS
Write us regarding your requirements.

REELS
1—Pusey Jones Pope Reel, 235″ face. Will make 60″ diameter rolls.
1—86″ 2 bowl reel.
1—84″ 3 bowl revolving reel.
1—100″ Rice Barton 2 bowl Reel, heavy duty.
1—123″—3 bowl revolving reel.
1—134″—2 drum.
1—72″ Downingtown Reel, 2 bowl.

REFINERS
1—12″ Wiener Refiner.
1—#0 Claflin Refiner.

ROLLS
1—Rubber Couch Roll—20″ diameter x 108″ face.
Felt, Table, Press, Breast, Couch, etc. Various sizes and types. (Bronze, Rubber, Iron, etc.).

ROTARY SCREENS
1—#1A Bird, copper vat.
2—#2A Bird Screens, copper vats.
2—#2A Bird Screens, copper vats, with motors, late type.
2—APMEW Rotary Screens
Write us regarding your requirements.

SAVEALLS
2—Sandy Hill, 36″ diameter x 86″ face cylinder molds, anti-friction bearings and couch rolls.

SCREEN PLATES
Bird Rotary screen plates.
Write us regarding your requirements.

SHEETERS
1—140″ Hamblet (Simplex).
1—140″ Hamblet (Duplex).
1—150″ Hamblet duplex sheeter & layboy.
1—124″ Moore & White Co., (Duplex) Sheeter, 4 pile layboy & 6 roll backstand.
1—78″ Moore & White Co. Sheeter (Simplex), layboy and 6 roll backstand.

SHOWERS
Write us regarding your requirements.

SHREDDER
1—Mitts & Merrill air-fluff excelsior paper shredder, with motor. Excellent condition.

SLITTERS & WINDERS
1—42″ Cameron Type 24-3A.
1—42″ Cameron—Type 9.
1—42″ Cameron—Type 6.
2—50″ Cameron—Type 6.
2—52″ Cameron Type 10.
1—72″ Cameron Type 10.
1—82″ Cameron—Type 10 (50″ rewind).
1—157″ Cameron—Type 18.
1—177″ Cameron Type 19 (Shear).
1—40″ Langston.
1—40″ Fales Slitter.
1—120″ Moore & White, 4 drum winder.
2—86″ Two Drum Moore & White, 50″ diameter rewind.
2—60″ Kidder.
1—96″ 4 drum Moore & White winder.
1—60″ Langston.

SLITTING DEVICE
84″—Quick change slitting device shear cut, complete, practically new.

STEAM JOINTS
18—3″ Johnson steam joints (new).

STOCK PUMPS
1—8 x 18 Shartle Triplex.
1—10 x 20 Shartle Triplex.
1—12 x 20 Shartle Triplex.
Advise as to your requirements.

SUCTION BOXES
Write us concerning your requirements.

SUCTION COUCH SHELL
1—Downingtown suction couch shell only, 127½″ face x 26″ diameter.

SUCTION COUCH ROLLS
1—36″ diameter x 246″ face, SKF bearings.
1—Sandusky Suction Couch Roll 18″ diameter x 98″ face.

SUCTION FELT ROLL
1—Gilbert & Nash 122″ face.

SUCTION PRESS ROLLS
Write us regarding your requirements.

SUPER CALENDER STACK
1—9 Roll 56″

TABLE ROLLS
22—Rubber Covered 10″ diameter x 246″ face.
30—4″ dia. x 130″ face (will cut to size).
Write us regarding your requirements.

THICKENERS
1—Pusey & Jones, 42″ x 146″ face cylinder mold, 18″ diameter couch roll. Complete with iron end wood vat.
Write us regarding your requirements.

TOILET WINDERS
2—72″ Hudson-Sharp (Surface type winder).

TRIMMERS
1—63″ Oswego cutter.
1—50″ Oswego.
1—55″ Seybold.
1—64″ Seybold.

TURBINE GENERATOR SET
1—150 kw General Electric.

VACUUM PUMPS
1—#7 Nash Hytor, complete with 75 h.p. synchronous motor.
2—H-4 Nash vacuum pumps.
1—L-4 Nash vacuum pump.
2—L-5 Nash vacuum pumps.
1—L-6 Nash vacuum pump.
1—L-6 Nash vacuum pump—with motor.
4—#1 Nash Hytor vacuum pumps.
1—#3 Nash Hytor.
2—Connersville, 14 x 20.

VALVES
8—10″ 3 way DeZurik Dump Valves.
6—12″ 3 way DeZurik Dump Valves.

VATS
2—D. J. Murray Company Vats, iron ends, for 42″ x 120″ cylinder molds, overflow and counterflow.

WET MACHINE
1—72″ Wet Machine.

YANKEE DRYERS
1—84″ diameter x 56″ face.

Paddy Ross, Pres.
377 Frelinghuysen Ave.*

J. J. ROSS COMPANY
Tel.—Bigelow 3-3720

Ben Kurs, Treas.
Newark 5, N. J.

FOR SALE

Fourdrinier Paper Machine with wire 159" x 80 ft. Now in operation with average production 97 tons newsprint per day. Pusey & Jones head box and slice, stainless steel lined, new 1953. 36" Downingtown suction couch, new 1953. Table rolls 7¾" dia. Two suction presses with 28" Downingtown rubber covered suction rolls. 40 Rice Barton dryers 48" dia., with rope sheave, new 1939-1940. 8 roll box frame calender. Pope type reel. Type 18 Cameron with water cooled unwind and constant tension unit. Enclosed drive units. G. E. turbine as prime mover. Also included are three 2A Bird screen, foundation plate and pumps as last operated with machine. Machine can be inspected while operating.

Frank H. Davis Company 175 Richdale Avenue, Cambridge, Mass.

J-7

BARGAINS

34—48" x 110" Bagley & Sewall Dryer Section complete with Cut Gears, Felt Rolls, Presses, practically a complete Dryer Section except Frames. This machine can be seen in operation until Dec. 15, 1956 at Newton Falls Paper Company—Newton Falls, N. Y.
21—48" x 82" Pusey & Jones Complete Dryer Section.
6—48" x 88" Bagley & Sewall After Dryer Section complete except for Frames. Less than 6 years old.
1—84" Kamyr Machine Complete. 75 Ton per Day.

RUDERMAN MACHINERY EXCHANGE
Gouverneur, New York
Telephone 333-334 TF

FOR SALE

350 H.P. MOTOR

New Elliott (Crocker-Wheeler) Motor 440 volts, 60 cycle 3 phase A.C. 1750 RPM Slip Ring. On original ski. Never used.

THOMAS W. HALL CO.
Stamford, Conn.

D-31

FOR SALE

Wood Pulp Mill

2 Fibre processing 10 x 30 barking drums
88" Carthage ten knife chipper
96" Carthage twelve knife chipper
Williams crusher
Ten Trimbley Senior screens
Five Impco knotters
Two Tyler vibrating screens
Pulp mill now in operation, can be inspected while operating.

Frank H. Davis Company
175 Richdale Avenue, Cambridge, Mass.

J-7

It will speed the reply to your inquiry to mention Paper Trade Journal.

Supplying Your Requirements

YOUR PAPER WASTE BECOMES PROFIT WHEN IT IS RECLAIMED. DO YOU SUPPORT THE MILLS WHICH MAKE THIS DISPOSAL POSSIBLE?

WASHINGTON, D. C.
CAMDEN, N. J.
NEW YORK, N. Y.
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Season's Greetings

and a prosperous 1957

Osborne PAPER MILL EQUIPMENT CORP.

FULTON, NEW YORK

For Sale

EQUIPMENT FOR SALE IMMEDIATE DELIVERY

(1) (A) Holyoke Machine Co. Supercalender, 66" face, 9 roll stack, with 2 extra rolls. (B) Unwind and rewind reel. (C) Fully equipped with motor and MG set.

(2) (A) Wet or dry waxing machine, complete with: (B) DC Drive and MG Set. (C) 1 set backstands. (D) 1 Wax tank complete with immersion equipment. (E) 1 85" face squeeze press. (F) 2 24" dia., 85" face Chill Rolls. (G) 1 Rewind Reel. (H) Vilter Refrigeration equipment consisting of: Goodfellow induction draft cooling tower; Ingersoll Rand Circulating Pump.

(3) Hudson Sharp Wax Paper Converter, Serial No. 1507, fully equipped, trim 72".

(4) Brightwood Box Machine, 6" Model, Automatic Rotary Feed, End Shredder (60 per minute). Complete.

(5) Continuous Feed Metal Edging Machine.

(6) Hamblet roller bearing cutter with 30 roll backstand, Serial No. 2282, Model 28, fully equipped.

(7) Hamblet electrically operated layboy, Serial No. 1140, fully equipped.

For further information, please contact the

Ruderman Machinery Exchange
Gouverneur, New York
Phone: Gouverneur 333-334 TF

COATING RODS FOR SALE

Equalizers, Doctor Rods, Metering Rods. Rod sizes 1/8, 3/16, 1/4 and 5/16 dias. Wire sizes #3 (.003) to #50 (.050) incl. Spring steel wire and Stainless steel wire.

DeNeve & Consler Co.
8 Boston Street, Rochester 21, N. Y. TF

For Sale

BARGAINS

ELECTRIC MOTORS
GEAR REDUCERS
MACHINE SHOP EQUIPMENT

275—Falk Cleveland & Jones Gear Reducers, P.I.V. Drives, Gear Heads, etc.

1000—Electric Motors from 1/4 H.P. to 600 H.P. in stock.

Special Offering

Totally Enclosed, Fan Cooled, B.B. G.E. Motors from 1 H.P. to 25 H.P. at 50% off list of Standard price motors.

1—24" x 6' Lodge & Shipley Geared Head Heavy Duty Motorized Lathe.

1—20" x 6' Lodge & Shipley Geared Head Heavy Duty Motorized Lathe.

1—36" Gould & Eberhardt Heavy Duty Shaper—Motorized.

Thousands of other items, including Pumps, S.S. Tanks, Pipe Fittings, Air Compressors, Fans, etc.

RUDERMAN MACHINERY EXCHANGE
Gouverneur, New York
Telephone 333-334 TF

EQUIPMENT FOR SALE

1—145" Holyoke Machine Co. 9-Roll Super Calender Stack. Complete with Motors and Drives.

1—20" x 160" Farrel-Birmingham Roll Grinder—Serial No. M-6326. Factory Rebuilt in 1954 at a cost of $18,500.00. All new drives. Will be available early next year. Here is your opportunity to see this machine in operation.

21—48" x 100" Dryer Section.

The above equipment is being sold for a customer and is subject to prior sale.

RUDERMAN MACHINERY EXCHANGE
GOUVERNEUR, NEW YORK
Phone 333-334 TF

Government Bids

PAPER AND ENVELOPES FOR THE U. S. GOVERNMENT PRINTING OFFICE

PROPOSALS

FOR FURNISHING

SEALED PROPOSALS will be received until 10 a. m. E. S. T., January 7, 1957, in the room of the Joint Committee on Printing, in the Capitol, Washington, D. C., for furnishing the paper for the public printing and binding, and blank paper and plain envelopes for the use of the Government departments and establishments in the District of Columbia, for the terms of 3 months for paper and 6 months for envelopes beginning February 1, 1957, deliveries to be f. o. b. Government Printing Office Warehouse, or warehouse siding, Washington, D. C. The proposals will be opened in the presence of and the award of contracts made by the Joint Committee on Printing to the lowest and best bidders for the interest of the Government whose bids are in conformity with the requirements of the proposals. The committee reserves the right to reject any or all bids, or to accept any bid or any part and reject the other part, if, in its opinion, such action would be in the interest of the Government.

Blank proposals containing the instructions, schedule, and specifications may be obtained by addressing Raymond Blattenberger, Public Printer, Washington, D. C.

Contracts will be entered into for supplying the quantities required, whether more or less than the estimates, as provided in paragraph 15 of the proposal for paper and paragraph 13 of the proposal for envelopes.

The aproximate estimated quantities set forth in detail in the schedules comprise:

PAPER

1,735,000 pounds machine-finish book paper; 30,000 pounds machine-finish book end paper; 70,000 pounds english finish book paper; 9,611,200 pounds offset book paper; 310,000 pounds antique book paper; 330,000 pounds supercalendered book paper; 1,389,000 pounds coated book paper; 780,000 pounds mimeograph paper; 310,000 pounds duplicator copy paer; 7,823,700 ounds writing paper; 814,975 pounds map paper; 362,000 pounds manifold paper; 1,826,000 pounds bond paper; 2,000 pounds parchment deed paper; 650,000 pounds ledger paper; 1,070,000 pounds index paper; 295,000 pounds cover paper; 15,000 ounds manila paper; 155,000 pounds kraft paper; 245,000 sheets gummed paper; 6,000 pounds oiled-manila tympan paper; 5,000 pounds high-finish red wallet board; 40,000 pounds manila tag board; 10,000 pounds jute tag board; 40,000 sheets railroad board; 60,000 pounds wood cardboard; 55,000 pounds tan board; 3,250,000 pounds postal card paper; 40,000 sheets pressboard; 175,000 pounds newsboard.
220,000
5 pounds binders board.
1 pounds chestnut cover board.

ENVELOPES

36,720,000 kraft; 12,360,000 writing, chemical wood, white and colored; 95,000 100% writing, white; 520,000 25% bond, white; 337,500 100% bond, white.

By direction of the Joint Committee on Printing.

RAYMOND BLATTENBERGER,
Public Printer.

WASHINGTON, D. C.,
December 17, 1956 D-24

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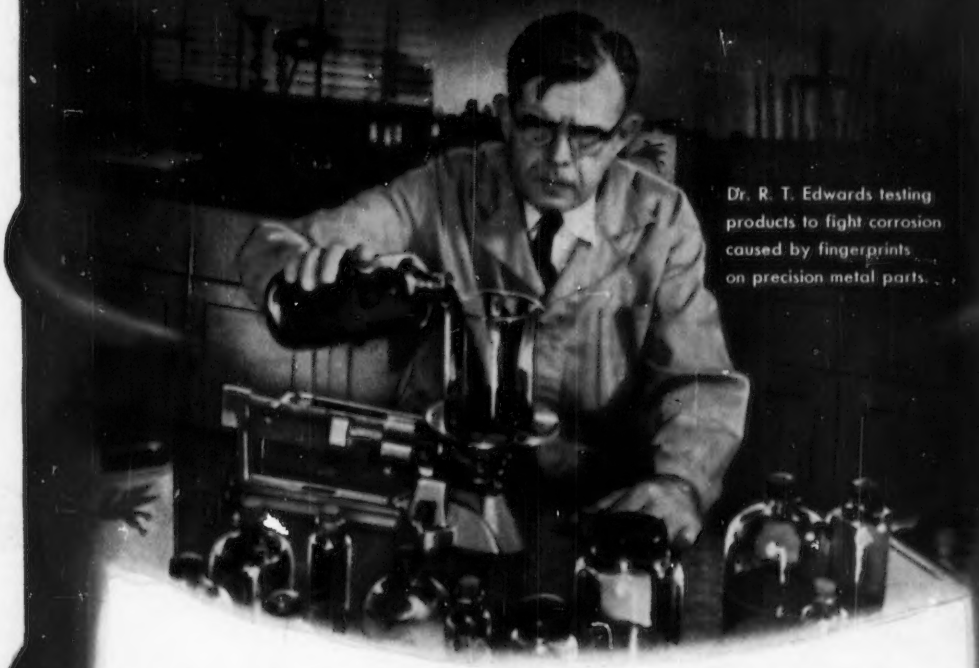

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